S
332.67152
O7mpi
1977-78

MONTANA PUBLIC INVESTMENT PLANNING PROCESS

FISCAL YEAR 1977-78 ANNUAL REPORT

MONTANA STATE LIBRARY
1515 E. 6th AVE.
HELENA, MONTANA 59620

An Old West Regional Commission Technical Assistance Project

MONTANA STATE LIBRARY
3 0864 1001 8981 3

MONTANA

PUBLIC INVESTMENT PLANNING PROCESS

Annual Report
July 1977-June 1978

THOMAS L. JUDGE
GOVERNOR

John A. Lopach
Director
Office of Commerce and Small Business
Development

Newell B. Anderson
Old West Regional Commission Coordinator

This report was accomplished with the financial assistance of the Old West Regional Commission, but the data, statements, findings, conclusions, and recommendations do not necssarily reflect the views of the Commission. The report is not copywrited and may be freely reproduced with appropriate crediting to the Office of Commerce and Small Business Development.

July, 1978

ACKNOWLEDGMENTS

Special recognition is extended to the following individuals for their cooperation and assistance in preparing this report: Maxine Johnson, Director, Bureau of Business and Economic Research, University of Montana; Bruce Finnie and Dan Horgan, Office of Commerce and Small Business Development; Tom Dundas, Administrator, and Phil Brooks, Economist, Research and Information Division, Department of Community Affairs; John Andrews, Planning Division, Department of Community Affairs.

Special recognition is also extended to Bessie Wong and Joyce Andrus, Governor's Office, for typing the final report.

CONTENTS

Introduction. 1

Section I -- Analysis of Montana's Economy 4

Section II -- Economic and Demographic Projections 33

Section III -- Montana's Future: A Mechanism for Balanced Growth. 54

Section IV -- Montana's Socioeconomic Goals for 1985 57

Section V -- Current Projects 62

Section VI -- Future Projects 66

Appendix A -- MASS Data Inputs and Projections 74

Appendix B -- Council of Economic Advisors 92

Appendix C -- Governor's Public Forums on the Economy 111

Appendix D -- RARE II Evaluation 124

INTRODUCTION

The purpose of the 1978 Montana Public Investment Plan is to examine the economy of the State, consider likely future trends in employment and population, and to refine economic goals and development programs that are consistent with the desires of Montana residents.

Clearly, any effort of this magnitude will be difficult. The intention of the Montana Public Investment Program is at this time to begin to systematically establish a method for determining goals and complimentary projects. The "end product", or perhaps more appropriately, "process" will represent a synthesis of the following essential elements.

(I) Economic/Demographic Analysis and Projections

(II) The Desires of Montana Residents

(III) Industrial Feasibility Studies of Acceptable Business Activity

The order of the main research and topic areas do not imply importance. However, to reasonably assess the long-term economic prospects for Montana, it is first of all necessary to provide plausible employment and population projections. An analysis of historical economic, demographic and environmental conditions is of course prerequisite to a true understanding of "where we have been and where we are going". To date, much of the emphasis of the Public Investment Plan has been focused on economic analysis. This facet of the plan will continue to play a major role in future years.

Within tne last several years, the State of Montana has made a conscientious attempt to begin to objectively discover the attitudes and aspirations of its citizens. The Montana Futures Project, the establishment of the Governor's Council of Economic Advisors, and a series of

public forums directed by the Governor and his staff have contributed to this effort. This year the Governor's Balanced Growth Program will again focus on this extremely important issue. In addition to additional public input, all agencies will be closely involved in developing social, environmental and economic growth goals and programs which will be representative of public concern.

This program will also begin to review the effectiveness of growth policies and promotional programs in other areas. However, it is important to realize that the effort is not directed at "growth for growths sake", but rather at matching public input with economic feasibility. Furthermore, it is not the intention of the program to attempt to foster economic central planning. The dominant consideration is to investigate all realistic measures that exist or should be secured within Montana state and local government's authority to ensure a healthy economic and living environment. The success of this effort will lie almost entirely on the ability to combine these three essential elements into a meaningful value.

Organization

The Plan is divided into six major parts:

(1) An analysis of historical economic and demographic conditions in the state. This portion of the plan was contributed by Maxine C. Johnson, Director of the Bureau of Business and Economic Research, University of Montana, Missoula.

(2) Projections of basic economic and demographic variables to the year 1990. The Montana Alternative Simulation System (MASS Model) is discussed. In addition, some preliminary projections are provided for review.

(3) A discussion of Montana's current program for examining the determinants and costs of growth.

(4) A statement of Montana's socio-economic goals and objectives for 1985.

(5) A discussion of current projects.

(6) A statement summarizing potential long- or short-term projects to improve the public investment planning process.

****

SECTION I

Analysis of Montana's Economy

Section I. - Analysis of Montana's Economy

THE MONTANA ECONOMY: 1978 AND BEYOND

By: Maxine C. Johnson*

Foretelling Montana's economic future is a difficult task. No one can predict the unforeseen events which can affect an economy which is still largely dependent upon agriculture and raw materials. The weather, new environmental legislation, and the recent energy shortage all have had an impact on Montana's economy. But while developments such as these are not always predictable, there are certain economic patterns which are. Recent economic and demographic trends, both in the state and the nation, serve as signposts which may indicate the general direction our economy will take.

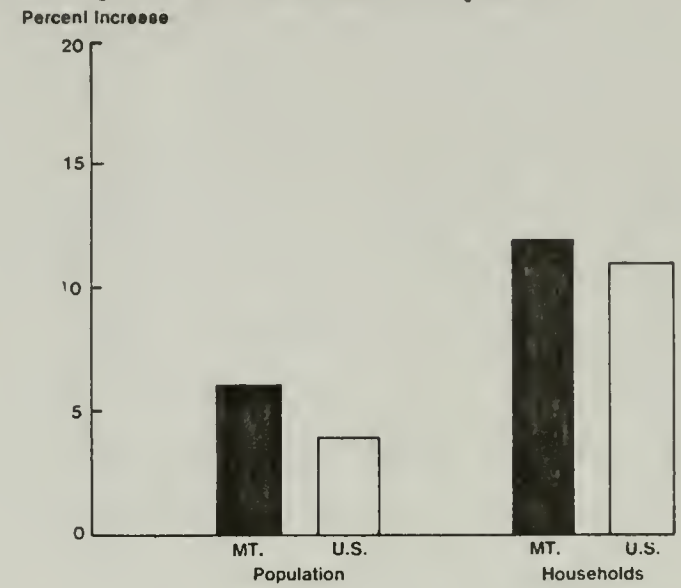
The Past Five Years in Montana

Homegrown Expansion: postwar babies come of age

First, let's examine population changes. In Figure 1, the left hand columns compare population increases in Montana and the United States over the past five years - between 1972 and 1977. While the U.S. population was increasing four per cent, the number of people in Montana is estimated to have grown six per cent. About 45 per cent of tne increase apparently has come from people moving into the state. According to the estimates, some 20,000 more people moved into Montana than moved out during the five-year period. Population movement is difficult to examine, however, and this figure may be inaccurate. The

*Maxine C. Johnson is Director of the Bureau of Business and Economic Research and Professor of Management, School of Business Administration, University of Montana, Missoula.

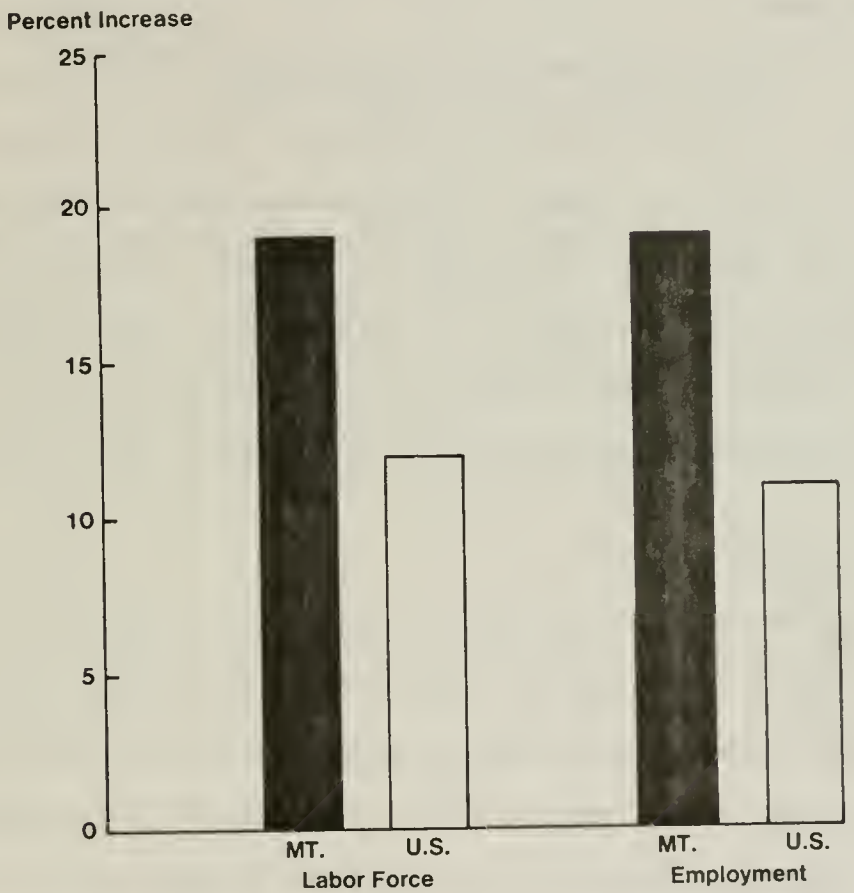
figures do show that net immigration slowed considerably between 1975 and 1977. Two years' experience does not make a trend, but it will be interesting to see the figures for the next few years.



Now let's look at the right hand side of the chart - the increase in the number of households. That tells us a great deal more about the past five years than do the population estimates. There were 12 per cent more households in Montana in 1977 than in 1972. During the whole decade of the sixties, the number of households in Montana grew by only seven per cent. All those babies born in the 1950s and early sixties have grown up and are now establishing their own homes.

And, of course, they also have been moving into the labor force. So have thousands of Montana women of all ages, many of whom had never worked before. The result has been a very large increase in the state's labor force (Figure 2). While our population was increasing by six per cent, the number of people looking for jobs was growing by 19 per cent. This was a substantially larger increase than the 12 per cent recorded in the United States, and almost three times the seven per cent increase Montana experienced during the whole decade of the sixties. The remarkable

thing is that the state's economy has been able to absorb almost all these new workers. Montana industries have created over 50,000 new jobs in five years. That represents a 19 per cent increase, compared to an 11 per cent growth in employment nationally. These comparisons are seen on the right hand side of the chart.



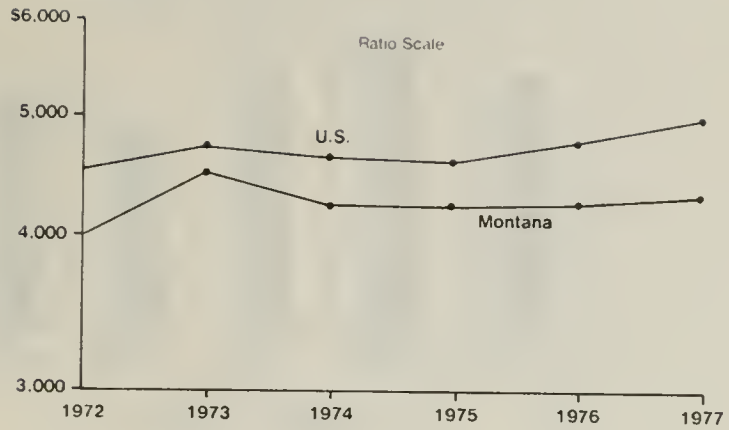
These two developments - the unusually large number of new households and the unusually large number of new workers - have been responsible for many changes in Montana in the past five years. The new households are smaller - young people nowadays aren't having as many children as their parents did - and they often have two persons working. That gives

them more discretionary income. They are responsible for a large proportion of the new houses and apartments, new retail stores and shopping centers that have appeared in recent years. In other words, a good share of the expansion Montana has experienced in recent years has been home grown - a result of changes in the age of the population and in the behavior of Montana women.

It is worth noting that even though Montana's growth exceeds that of the United States, the rate of growth here is much slower than in the other Rocky Mountain states. Depending upon your attitude towards growth, you can regret or be thankful for that. And most of the growth in Montana still is confined to a few counties. Seven counties - Yellowstone, Missoula, Flathead, Gallatin, Lewis and Clark, Ravalli, and Rosebud - have accounted for approximately three-fourths of the population growth.

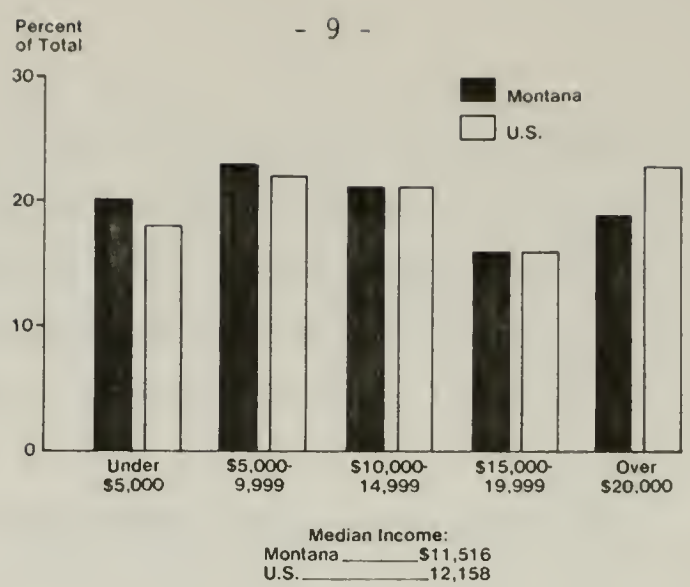
Incomes continue to lag

In comparing economic progress among areas, most of us would choose to use income as the measure. And here Montana has not done so well (Figure 3). Even though the state added jobs more rapidly than did the U.S., incomes lagged behind. After adjustment for price changes, per capita income in Montana was up approximately eight per cent between 1972 and 1977. In the U.S. as a whole, the increase amounted to 11 per cent. We began the period in 1972 with incomes 11 per cent below the U.S. average; we ended it last year with incomes 13 per cent below the national figure. Per capita income, of course, is total personal income divided by total population - average income per person.



There are several problems with using per capita income figures to measure economic well-being. One is that people frequently prefer to forego some monetary income in order to enjoy nonmonetary benefits, such as uncrowded living and beautiful scenery. We recognize this, but we continue to believe that income is important, especially to those who have low incomes.

Another problem is that per capita income, since it is an average, doesn't tell us how income is distributed among persons or households. But we have some new information on income distribution, and this news is not good (Figure 4). In 1975, our state had a higher percentage of households with low incomes - below $5,000 and between $5,000 and $9,999 - than did the U.S. And, we had a significantly smaller percentage of households in the higher income brackets (over $20,000). The median income for Montana households was $11,516, and for U.S. households, $12,158. That means half of Montana households had incomes below $11,516, and half had incomes higher than that. The dividing line for the U.S. was $12,158 or $640 higher.

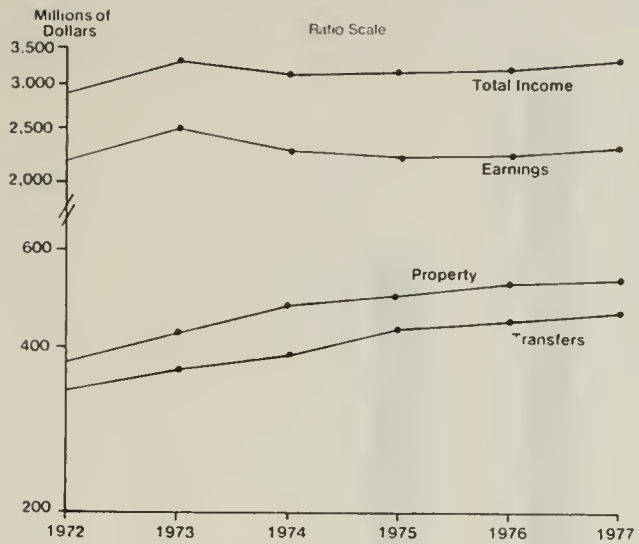


So, in spite of the growth which has occurred in the state over the past five years, the incomes of Montanans continue to lag behind those of other Americans. In my opinion, we ought to be concerned about this lag, particularly since we also have a large proportion of low income families.

Sources of income

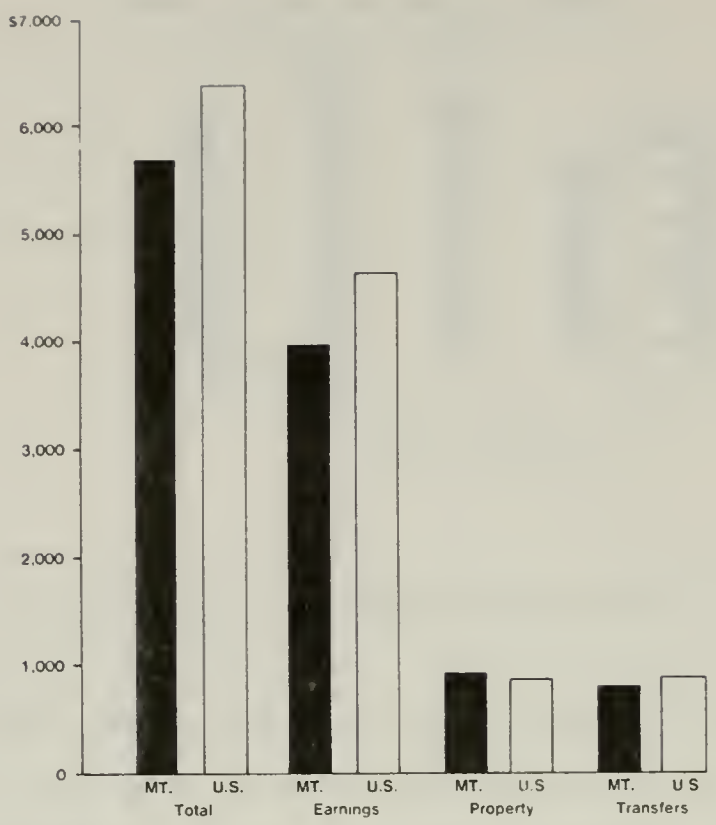
There are three major sources of personal income: earnings from participation in the labor force, property income, and transfer payments. Earnings include wages and salaries, other labor income and proprietors' income (income of the self-employed). Property income consists of dividends, rent, and interest. Transfer payments include social security and other retirement pay, unemployment insurance and payments under various government welfare programs. Figure 5 shows some interesting changes in these income sources over the past five years. All the figures have been adjusted for price changes. Most of our income comes from earnings, of course, and earnings in Montana just haven't increased very rapidly over the past five years. We had a big bulge in 1973 as farm incomes soared, but we ended the period with total earnings only seven percent above 1972. Remember that we had a 19 per cent increase in employment.

TOTAL PERSONAL INCOME BY SOURCE,
MONTANA, 1972-1977
CONSTANT (1972) DOLLARS



Increases in property income and transfer payments helped offset the slow growth in earnings, and these sources of income have become much more important. Property income was up about 43 per cent. Transfer payments increased 39 per cent. The big increase in property income occurred in interest payments (on individual savings deposits and so forth); interest payments account for about two-thirds of property income in this state. Montanans may not have been earning as much as other Americans, but apparently they have added significantly to their assets in recent years. Social security is the largest component of transfer payments, and accounted for a large part of the total increase in those payments.

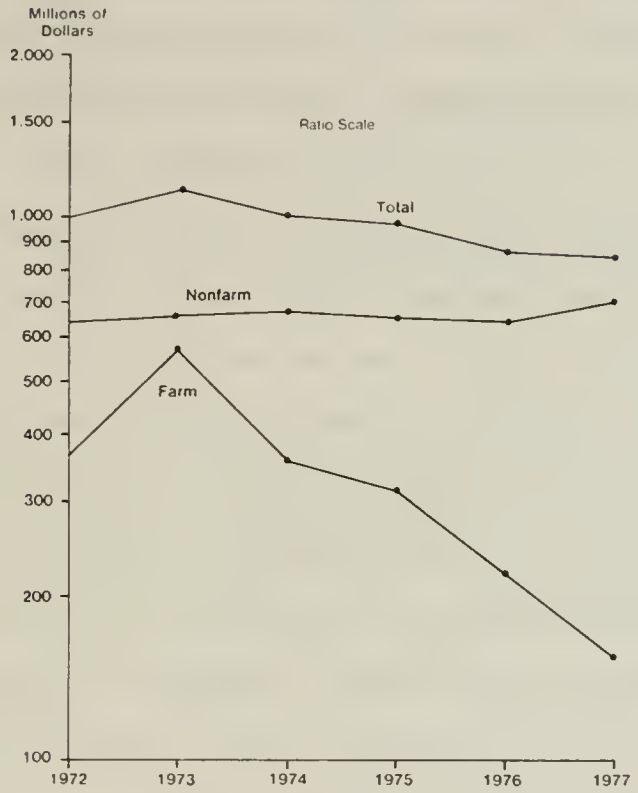
Figure 6 compares per capita income in Montana and the United States, and clearly indicates Montana's lag. Per capita earnings are substantially lower here, approximately $650 less per person, and so our total incomes are low.



Why earnings have grown slowly

Let's look briefly at why earnings have grown so slowly in Montana in recent years. Most of you are familiar with the concept of basic or export industries which produce goods and services for sale outside an area, and are believed to be responsible for economic growth. Over the years, they also have been the industries which provided the highest earnings per worker. Figure 7 shows what has happened to Montana's basic industries over the past five years, after adjustment for price changes. The decline in total earnings amounts to 16 per cent. That dramatic downward line, of course, represents agricultural earnings. Actually, this chart overdramatizes the situation. 1973 was one of the most profitable years Montana farmers and ranchers have ever had - the kind they would like to become accustomed to. The years 1972 and 1974 were above average

farm years, too. But the farm problem is serious. If we look just at what's happened since 1975, a more typical year, we see that farm earnings have declined by about one-half in the past two years.



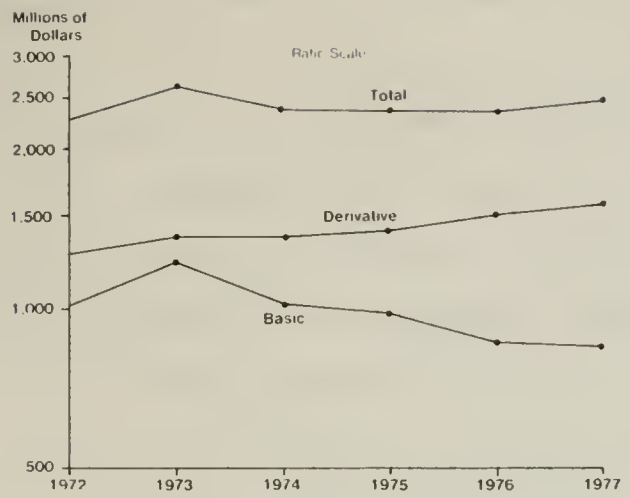
While farm earnings were sliding, our nonfarm export industries were having problems, too. This group consists of mining; manufacturing, including the forest industries; heavy construction; railroads; and federal government activities. These industries had some difficulty recovering from the 1974-75 recession. Earnings hit their low in 1976, after the national recovery had already begun. By 1977, however, they had climbed back to a level above 1972.

Tourism, which is also an export industry, isn't included because we have no data for it. Most of the businesses serving tourists are classified

in either the trade or service industries. Because most of their sales are to local people, they are included in the derivative industry group.

The growth in Montana since 1972 has occurred in what we call derivative industries - those industries which provide goods and services for export activities and for the local population (Figure 8). We include trade, services, finance, some construction activity, utilities except railroads, and state and local government in this group. Earnings of workers in these industries have grown by 26 per cent in constant dollars over the past five years. That's a big increase, and without it we'd have been in big trouble; you can see that derivative earnings went a long way toward offsetting the decline in basic earnings. Ninety per cent of the new jobs in Montana in the past five years (around 46,000) have been provided by derivative industries, especially trade, services, and state and local government. A good many of the new state and local jobs have been funded by the federal government, although it's impossible to learn how many. In the past three years, state and local governments have added a total of almost 11,000 employees, or 40 per cent of all new workers. In the private sector, many of the new young workers and many women have found employment in retail stores, restaurants, motels and so forth. The problem is that for the most part these jobs don't pay very well, and an increasing proportion of them appear to be part-time jobs.

(See Figure 8 - next page.)



Between 1972 and 1977, the average number of hours worked per week by wage and salary workers in the service industries, where we had 7,000 new jobs, declined by 12 per cent. That's a very substantial decline, and it compares to a two per cent drop nationally. We appear to have had a rather successful spread-the-work program in Montana, with more people working fewer hours. That isn't all bad. Many of the new workers (especially students and women) may have preferred part-time work. But we can hardly expect to improve our economic status - or even maintain it at current levels - if we continue to rely so heavily upon part-time, low-paying jobs for new employment opportunities.

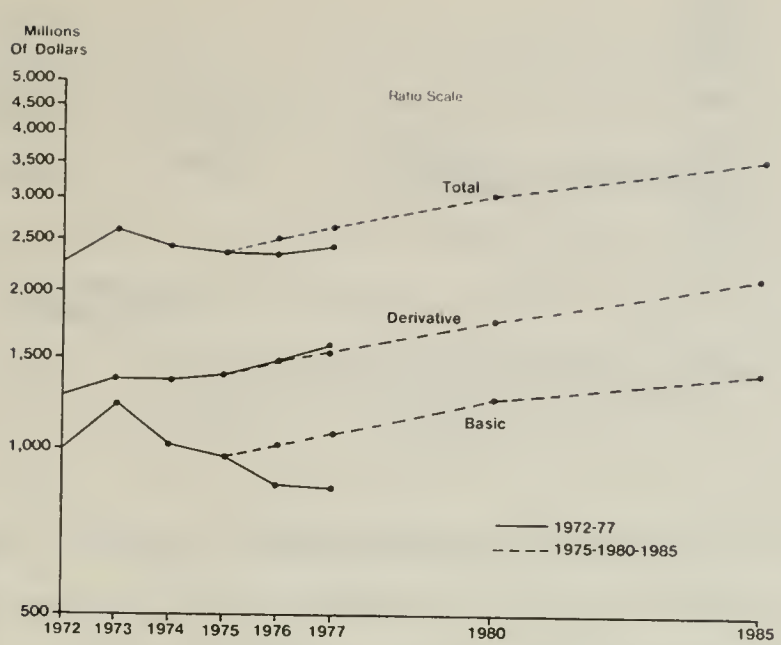
The BEA Projections for 1980 and 1985

Now let's look at the future, and at our chances of providing better employment opportunities and higher incomes for Montanans in the years ahead. We're going to need many more new jobs during the next few years. Large numbers of new, young workers will continue to enter the

labor force, and the proportion of women seeking employment probably will continue to rise.

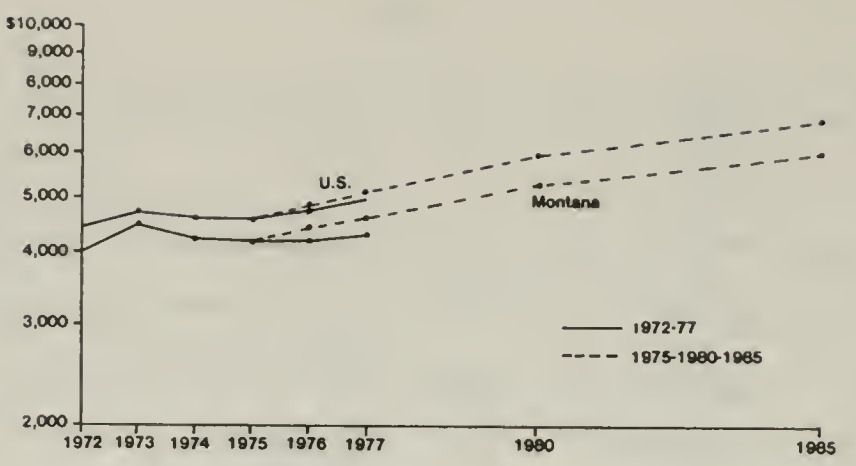
The Bureau of Economic Analysis, U.S. Department of Commerce, has recently projected personal income in Montana to 1985. The BEA projections for Montana are part of a series of coordinated projections for the U.S. and all the states. When possible, they have taken into account anticipated changes in particular industries, such as those in the energy field. But basically, they assume that state and national income trends established during the sixties and early seventies will continue, and that established relationships between national and state per capita income will continue. Let's look at the projections first and then discuss the outlook for the industries which will largely determine whether or not they prove to be accurate.

Figure 9 shows the estimates of total earnings from 1972 to 1977 presented in Figure 8, plus projections to 1980 and 1985. Although these projections were published just last fall, 1975 was the jumping off year. The estimates of actual earnings are indicated by a solid line, and the broken line connects 1975 to the 1980 and 1985 projections. You will note that we are falling behind schedule if we are going to reach the total projected earnings for 1980 and 1985. The reason, of course, is that sharp decline in earnings in basic industries due to the fall in farm income. Farm earnings are going to have to bounce back very rapidly in the next few years if the Montana economy is to live up to these projections. We also will need significant expansion in the nonfarm basic industries. The middle line on the chart represents earnings in the derivative industries, and earnings in those industries are expected to continue to increase.



The overall rate of growth anticipated between 1975 and 1980, as you can see, is faster than that projected for 1980 and 1985. That's because the projections reflect the anticipated recovery from the recession between 1975 and 1980, while growth between 1980 and 1985 was expected to be more normal. Property income and tansfer payments, which are not shown on the chart, are assumed to grow somewhat more slowly than in recent years.

Now let's look at what these projections imply for per capita incomes in the state (Figure 10). The expectation is that per capita incomes are going to increase, but that the gap between U.S. and Montana incomes will continue. Per capita income in Montana is projected at $6,150 in 1985, or 42 per cent higher than in 1977, in 1972 dollars. (For those of you who can't remember what a 1972 dollar was, the 1985 projection translates into about $8,700 current dollars per capita.)



The income gap would not change much. Per capita income in Montana was 13 per cent below the U.S. figure last year, and the projection is for a differential of 12 per cent in 1980 and 11 per cent in 1985. So essentially, these projections are saying that Montanans should be considerably better off in 1985 than they are today. They also indicate that there's not apt to be much change in the economic status of Montanans in comparison with the rest of the country, unless some new developments, unforeseen when the projections were made, come along.

How realistic are these figures? First of all, the Montana projections for per capita income are based upon an assumption of very slow population growth, only three per cent between 1975 and 1980, and shift from the net in-migration we've been experiencing since 1970 to a pattern of substantial net out-migration, because our natural resource increase will surely exceed the projected growth. If our population should grow faster than the projection - if we have to divide the pie among more people - then per capita incomes will be lower.

Second, the Montana projections for per capita income are tied to the U.S. projections, which may be optimistic. A good many economists anticipate another recession in 1979 or 1980. That would slow overall

real income growth between now and 1980, and probably make the 1985 figures too high. So Montana may not do as well as the projections indicate between now and 1985. But we're also concerned with the immediate future - 1978. And in spite of growing concern about what may lie ahead, most economists are predicting that 1978 will be a lot like 1977. That is, it will be a pretty good business year overall, but inflation and unemployment both will continue to be too high. Most forecasts anticipate a real growth of from four to 4.5 per cent in gross national product, an inflation rate of six or 6.5 per cent, and an average unemployment rate of from six to 6.5 per cent. That would mean a somewhat slower rate of growth this year than last, and slight reductions in both inflation and unemployment. These are consensus figures. There are a few mavericks who think the majority of economists are too optimistic, and that inflation will be closer to seven per cent and unemployment closer to 6.5 than six per cent of the labor force.

Let us assume that the majority is correct in assuming a reasonably good year for the U.S. economy in 1978. Let's keep in mind the projections for 1980 and 1985, which suggest a significant income growth both nationally and in Montana, recognizing that there's also a possibility of another setback between now and 1980. And against this background, let's look at the prospects for Montana's basic or export industries, all of which are affected by national, and often world, developments.

The Outlook for the Basic Industries

Agriculture - still a bellwether industry

Let's start with agriculture, still the state's bellwether industry. Its problems have been much in the news recently, and while it's true

that farmers and ranchers have never been known for their optimism, this time they are not calling wolf.

Since so much of Montana's economy is tied to agriculture, the obvious question is why the agricultural depression hasn't affected the state more than it has. How can the Montana economy continue to expand - even slowly - when agriculture is in such bad shape? Part of the answer is that in the short run gross farm income - before expenses - has a greater effect on the state economy than does net farm income, and gross income has not fallen as sharply as net. Since they have no control over markets, farmers keep producing even when times are bad. That means they use their receipts from sales to buy production items even when profits are down. They may postpone buying a new tractor, but they continue to purchase current production items.

There also is a time lag involved, since payday for most farmers and ranchers comes in the fall. Last year's reduced receipts will have more effect on this year's than on last year's business. Over the longer run, of course, the decline in farm profits will have a more serious effect. If farm conditions don't improve, you can be sure the state economy will feel it more and more.

Unless unexpected developments occur, 1978 probably will bring a slight improvement in the agricultural situation. Cattle prices are expected to rise as beef production declines, but competition from pork and poultry will tend to put a damper on beef prices. Supplies of those meats are increasing, and their prices likely will be down. World grain supplies are rising and market prices could fall further.

Increases in gross farm income this year likely will be the result of government payments to grain farmers and improved cattle prices. And

increased production costs will offset some of that gain. That means net farm income in Montana may show only slight improvement. Hopefully, it also means that the long downward slide in farm income has come to an end. How long before it returns to acceptable levels is another question.

Beyond 1978, farmers and ranchers must look forward to more government assistance and more government intervention, at least through 1981, when the new farm program expires, unless or until market conditions improve. The BEA projections that we have been looking at assume that agricultural income in both 1980 and 1985 will be about three times the 1977 figure in constant dollars, but 20 per cent below the 1973 high. These projections do not reflect any inside knowledge as to future weather conditions in the Ukraine, or other events which would affect the world supply of grain. They are, again, simply an extension of trends prior to 1975. If we're lucky, the income levels they project may materialize.

The forest industries - an uncertain future

Manufacturing is the most important nonfarm export industry in Montana. By far the most important activity within manufacturing is the wood products industry. Two other major manufacturing industries - primary metals and oil refining - will be included when the outlook for mining is discussed.

The wood products industry, as everybody knows, is the backbone of the western Montana economy. Its prospects assume special importance for Montanans living west of the Divide. Those prospects are heavily dependent upon the national housing market, and upon available timber supplies.

The market outlook for this year is reasonably good. In 1977, over 1.9 million new housing units were constructed, and experts are predicting anywhere from 1.7 million to 2.0 million this year. In spite of tighter

credit, homebuilding should continue strong through the first half of the year because of the current high level of mortgage commitments. We may see a slump during the last six months, but, overall, it could be a reasonably good year.

Indeed, if all the industry had to worry about was the housing market, prospects for the next few years should keep it in good spirits. That growth in the 25- to 44-year age group, plus the trend toward more and smaller households, means that if financing is available, the demand for housing is likely to remain high for some time. But there are other considerations for most Montana producers which make the outlook less certain. These, of course, are the questions pertaining to the supply of timber from public lands, in an area heavily dependent upon public timber.

In recent years, the forest industries have been caught in the dispute as to how public lands should be used. At the present time, some 6.5 million acres of roadless national forest lands and grass lands in Montana are being reviewed for possible inclusion in the National Wilderness Preservation System, mostly under a process called RARE II.

RARE II stands for Roadless Area Review and Evaluation, and it is likely to become a well known acronym in Montana during the next few years. At the end of the evaluation process, in December, 1978, the Forest Service will make recommendations to the Congress as to which of the areas evaluated under RARE II should be added to the wilderness system. The available timber supply may be further reduced permanently as a result.

But that's not all that's worrying the Montana industry. The National Forest Management Act of 1976 directs the Forest Service to identify

lands "which are not suited for timber production, considering physical, economic, and other pertinent factors...". This may pose a further threat to the timber supply in Montana, on the grounds that our steep mountain sides are not physically suited to timber harvest and/or that they are marginal producers compared to forests in other parts of the country. In other words, future investment in national forests presumably is to be allocated to areas where the relative effects on environmental quality are the smallest and the potential return on investment is the highest. It is difficult to disagree with this concept, but it does put the burden on the Montana industry to establish the suitability of Montana national forests for timber harvest. The guidelines do provide that consideration is to be given to the impact of reduced supply on local economies.

Understandably, these national policy developments make the industry very nervous. At best, the outlook is for stronger competition and increasing prices for what may be a declining amount of public timber. By 1985, there probably will be fewer wood products firms in Montana, with production concentrated in the operations of companies producing a combination of products utilizing both sawtimber and residuals. It's possible that forest residues - the material now left in the woods - will be used for additional pulp and paper production, particleboard, and/or industrial fuel. Such developments would help offset the loss of jobs likely to occur with the closure of small sawmills.

In this context, one significant development currently deserves special mention. That is the expansion of the Missoula pulp and paper mill. When completed in 1981, the $149 million project will provide 150 new jobs. They are good jobs; the earnings of mill employees in 1976 averaged over $19,000. From the standpoint of the Missoula economy, the

timing could hardly have been better, coinciding as it does with a decline in employment at the University and a large expansion in retail trade facilities.

Given the favorable housing outlook for 1978, statewide employment in the forest industries this year will average about the same, or only slightly below last year, at around 9,800 workers. Looking forward to 1985, we might count ourselves fortunate if the industry - whatever its product mix - had maintained current levels of employment. It might, however, increase its contribution to income through a growth in the proportion of higher paying jobs, such as those in pulp and paper.

Mining - not what it used to be

Some of the most interesting developments today are occurring in the mining industry. Montana still calls itself "The Treasure State," but nowadays most people thinking of Montana's treasures probably picture farmland or timber, or maybe a good fishing stream. The mining industry - particularly metal mining - isn't what it used to be, in terms of either economic or political impact.

Metal mining in Montana means copper, of course, and the world copper market has been in trouble for some time. During the past three years, there's been too much copper and the world price has been depressed. This has been especially hard on U.S. producers, who have lost markets to lower-priced foreign copper. In Montana, metal mining employment has fallen from 4,000 in 1974 to around 1,900 today. Butte recently lost a number of high-paying jobs when most of the upper-echelon employees of ARCO were transferred to Denver. Although employment has declined by half, output fell only 32 per cent between 1974 and 1977. This seems to indicate a substantial increase in productivity per worker over the past

few years.

The fate of the primary metals industry is closely tied to copper production; about two-thirds of the workers in that industry are engaged in copper smelting and refining. The employment declines in primary metals have been much smaller than in mining, but environmental standards which apparently would require large expenditures to bring existing operations into conformance may pose a future threat.

Most experts think recovery of the world copper market is going to be slow and gradual. During the remainder of this year, we could expect the number of metal miners to hover around 2,000, where it is today, and primary metals substantial increase in mining and smelting employment between now and 1985 probably is dependent upon new mining projects. Such developments may be a part of Montana's future. Copper analysts are predicting a shortage of the metal and significant price increases by the mid-1980s.

It's a sign of the times that there are more Montana workers employed in oil and natural gas production than in copper mining. Actually, most of the workers added during the past year are engaged in exploration rather than production. The bulk of the employment continues to be in the eastern part of the state; Sidney, for example, is experiencing a mini-boom in oil exploration. But western Montana, which has seldom seen an oil drilling rig, is seeing them today, as interest in the Rocky Mountain overthrust area increases. There have been some important discoveries in Wyoming and Utah in the overthrust belt, but none so far in Montana.

We think there may be further increases in employment in the oil and gas industry next year. Several hundred new jobs in the industry

over the next few years are quite likely.

All this activity results not just from the national energy situation, but also from the problems facing Montana refineries. Our refineries have become very dependent on crude oil from Canada. About 40 per cent of the oil refined in Montana comes from north of the border, and Canada is gradually cutting off that supply. Unless alternative sources of crude oil are developed, some state refineries will have to close. The Northern Tier Pipeline could help solve the problem by providing Alaskan crude; this would involve some adjustments by the refineries to adapt to Alaskan oil.

Paul Polzin has estimated that if the pipeline does not materialize and no other sources of petroleum become available, the state could lose as many as 2,700 jobs - 500 in the refineries and up to 2,300 in derivative industries. Many of the jobs (up to 2,100) would be in Yellowstone County, and that would be a serious blow to Billings and Laurel. And if Montana refineries reduce their output, industry and consumers throughout the state could find themselves paying higher prices for imported petroleum products.

Experts tell us that the crude supply should be adequate for 1978. Beyond that, we will need interim measures such as exchanges between Canadian and Montana firms, a unit train system, or a negotiated postponement of the cutoff date until new pipeline facilities are available. That could be three or four years away, allowing time for permits and construction.

Remember the days a few years ago when newspaper headlines predicted an influx of thousands of coal miners, and some even envisioned a new Pittsburgh in eastern Montana? Well, around 900 coal miners produced

about 27 million tons of coal last year, and the Montana Energy Office anticipates around 31 million tons this year. Colstrip, with some 2,200 inhabitants today, is the largest population center in the coal fields. Furthermore, the probable extent of Montana coal development appears to be declining as a result of some recent developments.

Most notable among these are the new federal Clean Air Act amendments, which require all new coal-fired generating plants in the United States to use the best available control technology to cut sulfur emissions. Today wet scrubbers are the best technology. The option of using low sulfur, compliance coal from the West without scrubbers, apparently has been eliminated for future generating plants. Since western coal has a lower heat content than eastern coal and since it costs a lot to ship, utility plants which did not have permits prior to the Clean Air Act amendments probably will not use western coal. Another provision of the Act states that local coal must be used wherever practicable in order to protect local jobs. This means that if an Ohio utility proposed to use western coal and by so doing would create unemployment among Ohio coal miners, it would not be permitted to do so. Local coal would have to be used.

In the light of this new legislation, as well as the delays which have occurred in obtaining permits and constructing new plants, and given the now obvious conclusion that no gasification plants are likely between now and 1985, projections of western coal production over the next seven or eight years are being revised downward. Joel Price, a vice-president and coal analyst for Dean Witter and Company, suggests that western producers may find themselves facing excess supplies and price pressures in the 1980s. There has been some evidence of that already.

According to Price's reckoning, Montana coal production could reach 38 million tons in 1980. If conditions justify further development and new mine construction is approved, output could total 61 million tons in 1985. Both of these are maximum figures. Earlier, widely publicized projections had called for around 100 million tons by 1985. Now it appears that Montana coal production in 1985 probably will be more than two or two and a quarter times what it was last year.

These projections suggest several important points. First, employment gains in coal mining in the foreseeable future will be quite modest - at the most, another 1,000 workers by 1985. Some of these people will live in Wyoming, and work in Montana. Second, although coal tax revenue is already very important to Montana, it may not turn out to be the bonanza some folks hoped.

To summarize, the mining industry will provide some new jobs this year in oil and gas exploration and coal mining. We hope that metal mining will not decline further. Between now and 1985, the mining and smelting industries could provide considerable new employment and earnings. That's assuming Montana refineries are able to obtain supplies of crude oil and anticipating increases in oil exploration and coal production. My ballpark estimate would be around 1,500 new jobs by 1985. This is considerably less than the projections we looked at a few minutes ago appear to indicate.

It was indicated earlier that the 1985 income projections by the Bureau of Economic Analysis assumed that farm income would be at rather high levels and that basic nonfarm income would increase significantly, based on rapid growth in manufacturing and mining. The projected increase in earnings in those two industries was 58 per cent. In the light of

the analysis I've just given you, I'd scale that estimate of total earnings in manufacturing and mining down considerably, perhaps by about one-half.

Other basic industries

There are three other industries which we classify as basic or primary (export) industries. They are heavy construction, railroads and the federal government. The growth industry among these three no doubt will be the federal government. Predictions are for more hiring at the national level, and that probably means more federal employees in Montana as well. Every now and then someone raises the spectre of President Carter's reorganization plans, and the possibility of the transfer of some regional offices, such as the Forest Service, out of state. That would be a severe blow to Missoula, but there is no way to predict what may happen. Unless some agencies are moved out of state, earnings from federal employment are likely to increase substantially, beginning this year.

Given the trouble the Milwaukee Railroad finds itself in, it's also difficult to assess what may happen to railroad employment. The projections show a small increase in total earnings over the next eight years, and that seems reasonable.

Heavy construction employment and earnings bounce up and down according to the number of large projects, such as dams, and the level of highway construction. This year Colstrip III and IV and the expansion of the Missoula paper mill should contribute around 500 new jobs. That number will grow in the next few years. The projections for 1985 show earnings slightly higher than in 1977, which was a pretty good year.

So, overall, our export industries - agriculture, manufacturing,

mining, railroads, and the federal government - should show some growth this year and over the next eight years. That's good news for the derivative industries serving them and the local population.

Continued growth in derivative industries

The BEA projections call for an increase of approximately one-third, in 1972 dollars, in the total earnings of derivative workers. Given the past history of these industries, that's a rather modest increase. The largest percentage gains are expected in the services and in state and local government, but substantial gains are anticipated in trade, finance, construction and utilities.

1978 and Beyond

This year: better than 1977

Now let's see what all of this indicates for the year's prospects, and for the general outlook to 1985. 1978 will probably be a better year for Montana than 1977. Gross receipts of farmers and ranchers should increase, and that will mean more agricultural spending. Net farm income may also improve a little, but farmers and ranchers, and many of their suppliers, especially businesses selling farm equipment and other capital items, are not likely to share in the general prosperity.

Among the nonfarm export industries, wood products should continue reasonably strong. We should see some increases in employment and earnings in oil and gas exploration and coal mining and metal mining may at least hold its own this year. The federal government will likely add to its payroll. Construction activity should be strong with the addition to the pulp mill in Missoula and Colstrip III and IV. The number of households will continue to increase, and that means a growing demand

for housing as well as other consumer goods and services.

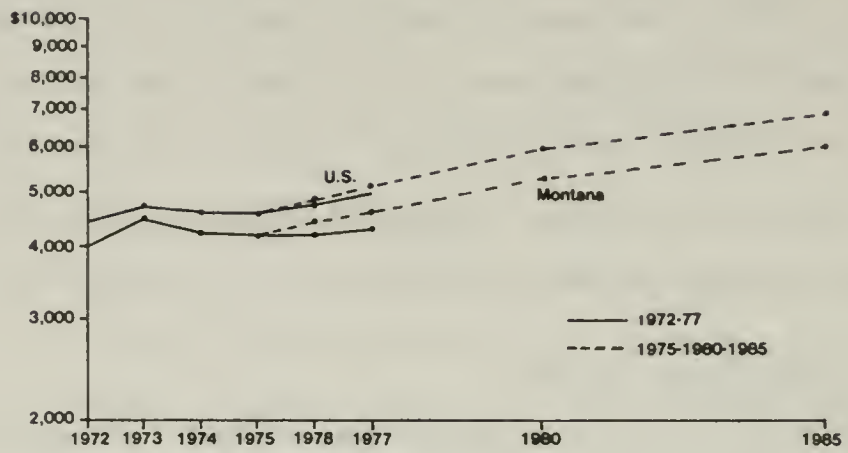
All of this - increases in export income plus the new households - will promote increased employment and earnings in the derivative industries. So 1978 looks like a pretty good year for much of the nonfarm economy. Until farm income recovers, however, the state's economic performance is going to fall short of what it should.

Modified projections to 1985

And finally, let's take another look at 1985. We have discussed the prospects for the various industries. Based on this discussion, I adjusted the BEA projections for earnings in manufacturing and mining downward and came up with modified projections for 1985. My projection for total income was only three per cent below the BEA figure. That hardly seems significant enough to mention when we're dealing with something so imprecise as projections. But all the difference occurs in nonfarm basic income, and that's where many of the good jobs are.

Table 1 shows some rough estimates as to what my projected increase in total income would mean in the way of employment. Farm employment obviously has very little relationship to earnings and is very difficult to estimate. I took the easy way out and assumed it would stay the same. The projections of nonfarm basic earnings relate to an increase of approximately 2,700 workers between 1977 and 1985. That's a three per cent increase in export employment, and represents a somewhat slower growth than we've had since 1972. The projection of a 34 per cent increase in derivative earnings could mean anywhere from 45,000 to 65,000 new jobs, depending upon the industry mix, changes in wage rates, and the number of hours worked per week. If the number of part-time jobs continues to grow, the higher number may be more accurate. Between

1972 and 1977, we added 46,600 workers in the derivative industries.



Using my earnings estimates and the BEA population projection, 1985 per capita income comes out two per cent lower than the BEA figure. That's hardly worth mentioning either. What is worth discussing is the effect different assumptions about population have on per capita income. Suppose that instead of 767,000 our population amounts to 800,000 in 1985 - a figure more in accord with recent estimates. Then per capita income would have increased only 33 per cent, rather than the 39 per cent projected by BEA. I don't know which figure will prove to be more accurate.

Or perhaps we should content ourselves at this point to summarize the outlook for 1985 something like this. Based on past trends in Montana and the U.S., adjusting where possible for probable changes, and assuming a strong comeback for farm income, Montanans can expect their per capita incomes, in real terms, to increase by from 33 to 38 per cent over the next eight years. In the process, the proportion of the population in the labor force will have continued to increase. Most of the new workers will be in the derivative industry group, many in rather low

paying occupations. Earnings in the export industries will show a large increase, but employment will grow only slowly. Per capita incomes in Montana will continue to remain well below the national average.

SECTION II

Economic and Demographic Projections

Section II. Economic and Demographic Projections

Introduction

This section discusses the use of MASS (Montana Alternative Simulation System) in projecting population for all 56 Montana counties to the year 2000. A summary of MASS is first presented. This is followed by a more specific discussion of the natural increase demographic model (cohort-survival model), the economic model and the final population projection methods.

SUMMARY OF THE CONSTRUCTION OF THE MONTANA ALTERNATIVE SIMULATION System[1]

The Montana Alternative Simultion System (MASS) is a computerized economic-demographic model designed to serve as a tool in the quantitative appraisal of the economic and demographic impact of a wide range of external events at the county level. The main goal of the system is to produce a consistent set of county level employment and population projections, as well as to provide a general framework for evaluating the impacts of industrial developments. MASS combines trend, economic base analysis and a population cohort-survival process into a complimentary whole, thus avoiding the divergent forecasts of employment and population that commonly result from independent forecasting methods. The principal advantage of MASS lies in its ability to produce at relatively low cost,

---

[1]This section draws heavily on a previously published summary document "Montana Alternative Simulation System", by Bruce Finnie, Research and Information Systems Division, Department of Community Affairs, Helena, Montana, March, 1977.

in both time and resources, projections of population and the impact of economic events. However, as with any model or information source, the outputs of MASS must be considered only a part of the analysis rather than an end product.

The first step in the construction of MASS was the formulation of the natural increase demographic model (cohort model). This model used age specific Montana birth information, adjusted projected national survival rates by age and sex, adjusted Montana labor force participation rates (per cent of a population group in the labor force) and employment-to-labor force ratios to project natural increase population and employment to the year 2000. This natural increase projection is an estimate reflecting no net migration. The analysis included special computational procedures for Indian, military and college student sub-populations.

The next step was the classification of employment sectors into two groups: basic and non-basic. Basic industries are those whose employment levels are determined by factors outside the areas of interest; in this case, the specific Montana county. Examples include agriculture and metal mining. Basic sectors also directly or indirectly export products outside the area being studied, and hence bring income into the region. On the other hand, non-basic industries such as the local government sector serve local needs. In addition, many sectors represent a mixture of basic and non-basic activity. All sectors for Montana counties were categorized as basic, non-basic, or some combination of the two. Every available information source was used in this process.

Once the basic sectors were identified, projections of basic employment levels by sector and county were made. These projections were principally time trends adjusted using documented planned employment

expansions and contractions and other information concerning the growth of a county's basic industries. Basic employment projections drive the entire MASS system.

The next step involved computing the ratios of non-basic-to-basic employment in each county for the period of 1970-1975. Data from this period, as well as other time periods and areas, indicate that these ratios or multipliers vary significantly over time and generally increase.

There are several factors behind this increase. First, personal income has increased, both in Montana and nationally, causing the demand for products of non-basic sectors to increase. Public and private services are more and more substituted for activities once provided in the home. At the same time, the supply of workers available for non-basic type jobs has increased as the "baby boom" babies reached employment age, and because of the increasing tendency of women to participate in the labor force outside the home.

The above factors were incorporated into the procedure for projecting a statewide non-basic-to-basic ratio. This ratio was calculated as a function of the weighted average of projected age-sex specific labor force participation rate projections, using the estimated natural increase population of the cohort model by age and sex as weights. Changes in the state multiplier were assumed to hold at the county level and were used to adjust the county ratios over time.

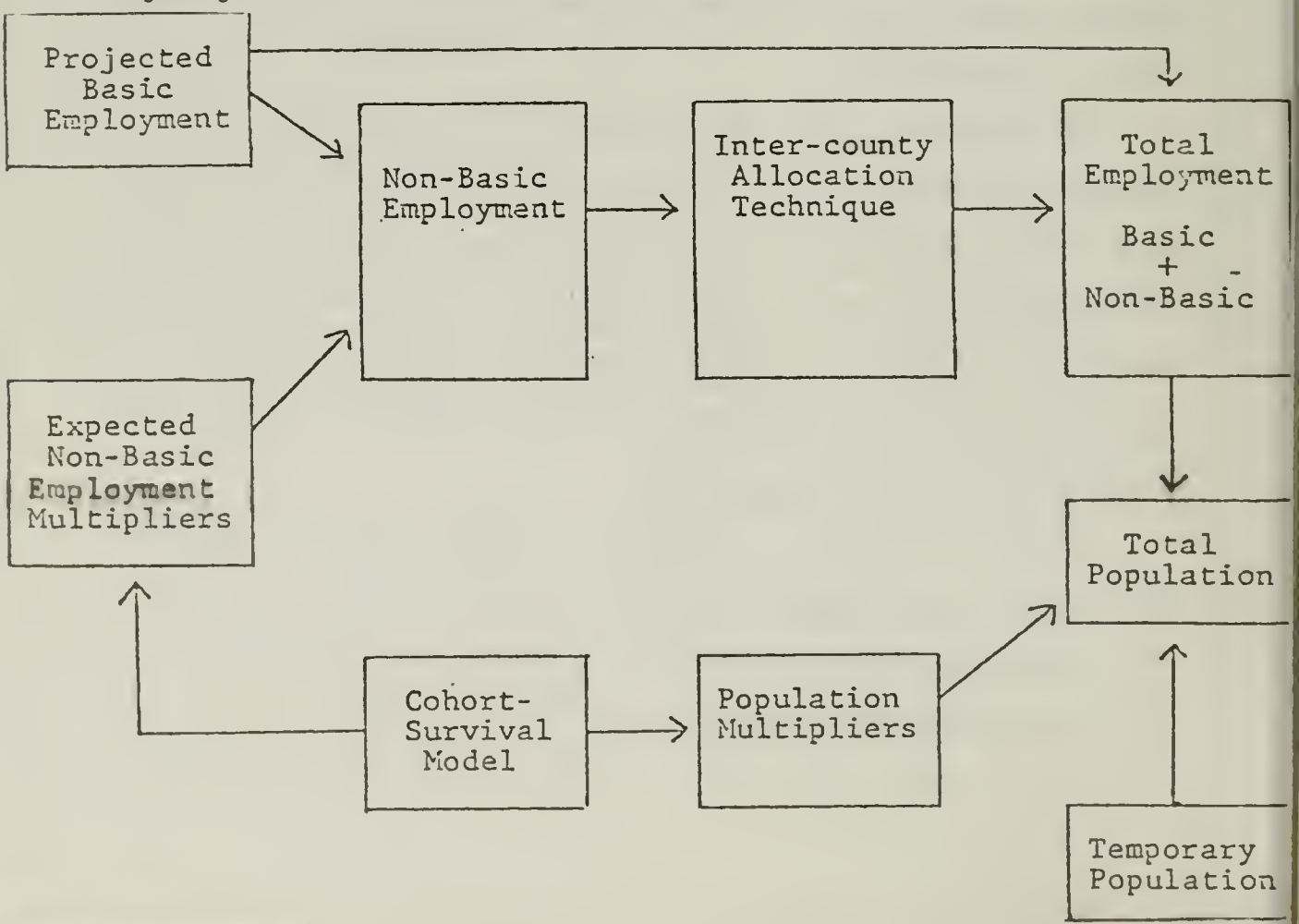
Non-basic employment by county was estimated by applying non-basic multipliers to county level basic employment projections. As part of this process, a mathematical programming-gravity model was used to quantify inter-county linkages between basic and non-basic employment. This resulted in a county percentage distribution or allocation of non-basic

employment related to basic employment in a given county. The allocation technique was confined to two of the five broadly defined types of non-basic sectors.

The next major link in the system required the development of a set of projected population multipliers. These population-to-employment ratios were derived from the cohort-survival model. These multipliers change over time for the same reasons which contributed to the general growth in non-basic/basic ratios.

The estimated population multipliers were applied to projected total employment (basic and non-basic) to derive projections of population by county. These were then adjusted for population levels associated with major temporary construction projects and for non-employment related population growth.

The overall structure of the MASS model is summarized in the following diagram.



The Cohort-Survival Model

The cohort model relies on county level base year population (1970) by age and sex, and projected fertility and survival rates.[1]

Special population groups, namely Indians, the military, and college students, were treated separately. Indian specific vital rates were used to estimate a natural increase Indian population, while the age-sex distributions for military and college student populations were assumed constant over the projection period, once their total levels had been estimated.[2] The three sub-populations were then combined with the rest of the population to produce an age-sex specific estimate of population in each Montana county due to "natural increase".

As indicated in the summary, the cohort model was also used to estimate the possible employment level due to a natural increase in population, in absence of net migration. This was accomplished in two steps. First, projected labor force participation rates were applied to the population projections to derive an estimate of the natural increase labor force. Natural increase employment was then computed as the product of employment/labor force ratios and the projected labor force numbers.

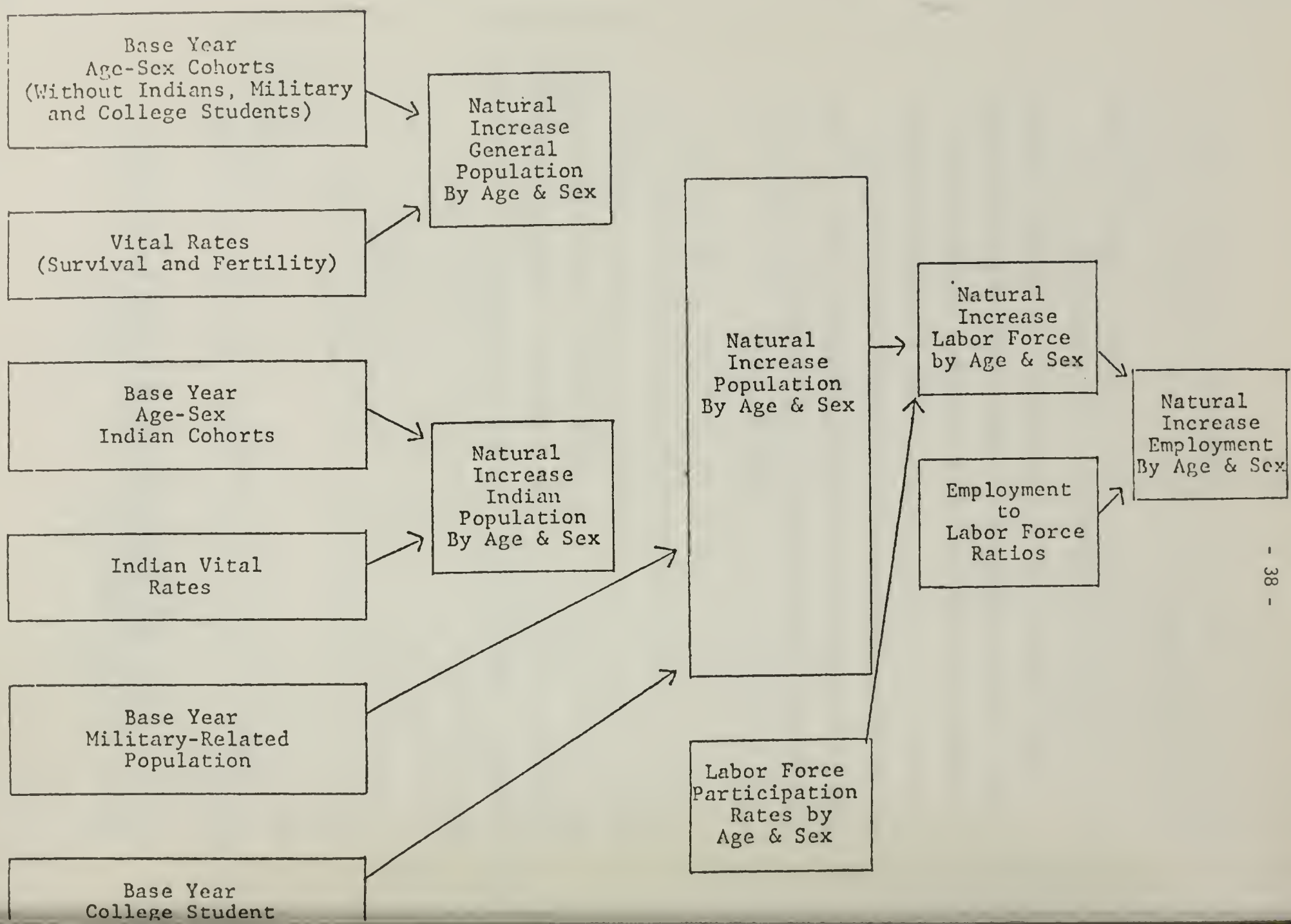
The natural increase population and employment projections were used in other parts of MASS. Specifically, they were used to help project the changing levels of non basic-to-basic ratios, and population multipliers.

---

[1]Montana rates are assumed to converge to the national projected level (Series II) by the year 1990. Specific data inputs are available on request.

[2]Research and Information Systems Division, Montana Department of Community Affairs, The Montana Futures Process: Final Report to the Old West Regional Commission (Helena, Montana: Department of Community Affairs, June 1976), Appendix III.

The overall structure of the cohort model is summarized in the following diagram.



Estimation of the Natural Increase Population

The core of the cohort model were the procedures for estimating the population level that would naturally occur without net migration. As mentioned above, three population groups were treated separately in the process, i.e., Indians, the military population, and college students. The rationale for this separation was that these groups have unique demographic characteristics and behavior as compared with the general population.

Estimation of Natural Increase for the General Population

The first step in the estimation of natural increase for the general population was the removal of special population groups from the general population for the base year 1970. Several procedures were used to accomplish this removal. In the case of Indians, data on population levels by age and sex were available from the 1970 Census of Population. Since Malmstrom Air Force Base is the only major military installation in Montana, only Cascade County was adjusted for military-related population. Data on the 1970 level and age/sex distribution of military personnel and their families were obtained from Malmstrom Air Force Base. Information on the 1970 college student population was obtained from enrollment records of the two state universities and the three Montana State colleges. These records indicated the number of students by class (freshman, sophomore, etc.) and by sex. The age distribution was computed using an estimate of average age by class. Adjustments to the general population because of college students were then made for Beaverhead, Gallatin, Missoula, Hill, and Yellowstone Counties. Students associated with smaller public and private colleges were not included in the computations.

Once an estimate of the 1970 general population without the three special population groups had been computed, each age/sex cohort (ages 0, 1, 2.....85+) was "aged" one year by multiplying each group by its projected survival rate. This rate is defined as one minus the death rate and indicates the probability of a person of a given cohort surviving to the succeeding year. For example, the number of males twenty-five years of age multiplied by the corresponding survival rate for twenty-five year old males yields the number of twenty-six year old males at the beginning of the following period.

The next step in the projection process involved estimating the number of births expected to occur during the year and adding them to the survived population. This was accomplished by multiplying the number of females in each age cohort between fifteen and forty-five years of age by that group's fertility rate, the probability of a woman in the given cohort having a live birth. The births for each female age group were then summed to get total births expected during the year and were divided into sex classifications using the base year's percentages of females and males. After births were added to the previously survived population as a new zero age/sex cohort, the entire process of surviving the cohorts and adding births was repeated each year until the end of the projection period.

Estimation of Natural Increase for Special Populations

As mentioned above, three population groups, namely Indians, military, and college students, were treated separately in the projection process. The natural growth of the Indian population was computed in basically the same way as the general population. The only difference involved using Indian specific survival and fertility rates. The level and age/sex

distribution of the military-related and student population groups were assumed to remain constant over the thirty year projection period (1970-2000). The rationale for this assumption was that these two population groups exhibit such high turnover that, though the people change, the characteristics of the population do not.[3]

Estimation of Natural Increase Labor Force and Employment

The possible labor force and employment levels due to natural demographic forces in absence of net migration levels were estimated after natural increase population projections had been computed. This estimation was accomplished by first applying projected age/sex specific labor force participation rates (the per cent of the population available for work) to the natural increase population cohorts. The result was an estimate of the available labor force (assuming no net migration). Employment-to-labor force ratios were then applied to projected labor force levels to arrive at an estimated natural increase employment level by age and sex. The employment numbers were summed over all age/sex groups to derive a total employment figure for each county, and for each year in the projection period. These represented employment levels that would occur as a result of natural demographic change. The natural increase employment and population figures were used later in the analysis to help derive and adjust employment and population multipliers over time.

Economic Model

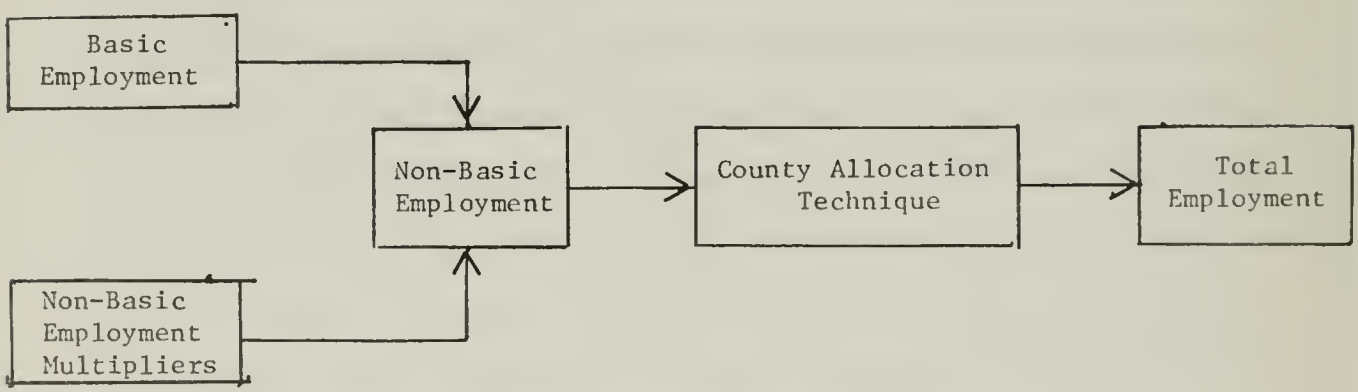
The economic model portion of MASS used economic base theory as a foundation. As mentioned earlier, the economic base of an area consists

[3]Ibid.

of those economic activities whose levels are determined by factors outside of the area. According to this conceptual framework, these "basic" activities are the primary driving force behind economic change for the region. The level of activity in the other non-basic sectors is assumed to be derived from "basic" activity.

Economic activity can be measured in either income or employment terms, or some combination of the two. Employment was used for MASS primarily because of the problems associated with measuring Montana county farm proprietors' income.* This is both the most difficult component of income to estimate and the most important part of total income for a majority of Montana counties.

The components of the economic base model are summarized in the following diagram and are discussed in detail below.



Basic Employment

Basic employment was projected in a series of steps. Sectors were first classified as basic, non-basic or some combination. A time trend

---

*The Regional Economic Information System, Bureau of Economic Analysis, serves as the county employment base.

employment projection for defined basic sectors was next made, and then adjusted using additional information and analysis. A number of information sources were used in identifying basic sectors. For example, tourism survey data were used to help separate the basic components of the retail trade and service sectors from the non-basic. Administrative records were employed to determine excessively high concentrations of state government employment in certain counties. Similarly, the employment associated with large-scale construction projects (dams, highways, etc.) was assumed to be basic activity. State and national location quotients (ratios showing the relative concentration of specific county industries) were frequently utilized as an aid for this entire process, but the final determination was based primarily on a familiarity with the county in question.

The next step in estimating basic employment involved a first-cut projection of the level of basic employment by sector and county. This projection was based on the historical trends of the data for the 1970-1975 period.

The final step involved adjusting the projected sector/county specific employment levels in a careful, but sometimes subjective, way. This was necessitated in part by the short time series (1970-1975) used in the trend projections. Sometimes an unusually low or high employment level for one year of the historical period made the trend line implausible. This was true for the agricultural sector for most counties, for instance. More ad hoc computational methods were then used to establish a projected basic employment level. At other times, documented planned expansions or contractions of employment in a county's basic industries were used to adjust the original projected levels of employment.

Non-Basic Employment Multipliers

Non-basic employment multipliers by county and by five broadly-defined sector classes were projected on the basis of their computed 1975 value (the last year of the "actual" employment data base) and the projected change in an equivalent statewide ratio. These statewide sector specific ratios in turn represented allocated values of a projected overall Montana non-basic multiplier. The overall multiplier was estimated using projected statewide natural increase employment-to-population ratios available from the cohort model.

Inter-County Allocation of Non-Basic Employment

After non-basic employment was computed by county as the product of total basic employment and the five sector specific non-basic multipliers, part of this non-basic employment was allocated to other counties. This allocation used 1975 inter-county linkage coefficients estimated by a mathematical programming and gravity model technique.[4]

Several steps were involved in the determination of base-year linkage coefficients. First, an average expected non-basic employment figure was derived for two of the five types of non-basic sectors for every county. These figures were computed as the product of 1975 basic employment for a given county times the statewide non-basic employment multiplier. This was used to represent an estimated demand for non-basic services. Second, "actual" 1975 county level non-basic employment numbers were used to represent supply. Next, a 56 x 56 mileage matrix showing

---

[4]Mathematical programming techniques are optimizing procedures of maximizing or minimizing some factor or group of factors subject to a series of constraints. Gravity models deal with the interaction among masses (areas in this context).

distances between the largest cities in each county was constructed. Fourth, the ratios of county base year (1975) population to these distances raised to the fourth power[5] for all possible county combinations were computed. These ratios were then used to determine the most likely county suppliers of non-basic services. Using a simultaneous interactive mathematical programming procedure, a percentage distribution for county suppliers (linkage coefficients) was derived for each county for the two types of non-basic activity.

Once linkage percentages were computed, they were applied to projected non-basic employment in order to distribute this employment among counties where appropriate. This allocation technique was confined to only the two types of non-basic sectors where inter-county linkages were judged most important.[6]

Total Employment

The determination of total employment was the last step in the economic model computations. Total employment was simply computed as the sum of projected basic and non-basic employment for every county in the state.

Projection of Population

Once total employment had been computed, population by county was projected using population multipliers (ratios of population to employment) derived from the cohort model. Special multipliers were computed

---

[5]5This exponent worked the best.

[6]The sector groups were: Retail Trade; Services; Non-Farm Proprietors (type 1); Wholesale Trade; Finance, Insurance and Real Estate; Printing and Publishing; Transportation (except Railroads); and the Federal Civilian Employment Sector (type 2).

for counties that in the recent past experienced substantial non-employment related population growth. Also, the temporary population associated with identified major construction projects was treated separately.

The cohort model described earlier produced total employment and population by county due to natural increase factors of births and deaths for every year of the projection period. These figures were used to form ratios of population to employment which defined the population multipliers that were used along with total county employment to estimate total population for most counties.

A few Montana counties have experienced substantial population growth since 1970 not closely related to growth in employment in these counties. The apparent reason for this phenomenon was workers living in one county and working in an adjacent county. For these few "bedroom" counties, population multipliers were not derived from the cohort model. Instead, multipliers were estimated based on the county growth rate of population-to-employment ratios for the period of 1970-1975. The projected population growth of the relevant adjacent county was also considered in this analysis.

The population associated with temporary construction projects presented another special estimation problem. Historical data indicated that the secondary or non-basic employment impact of temporary construction (basic) employment was minimal in Montana counties. Because of this, the population effects of temporary construction employment were added separately to the estimate of the more permanent population, as the last step in the projection of population. The level of temporary population was estimated as the product of the number of workers in identified future temporary construction projects, and an appropriate population multiplier specific

to construction workers. This level of temporary population was then added to the "permanent" population to derive the estimate of total population.

Projections

The following employment and population projections represent preliminary state level totals. County level output in approximately the same format are available upon request. The "general" assumptions relating to both the basic and non-basic employment levels are outlined below.

EMPLOYMENT/POPULATION PROJECTIONS
(thousands)

Sector	1980	1985	1990	1995	2000
Agriculture	35.0	34.0	33.0	32.0	31.0
Lumber and Wood Products	9.5	9.8	10.0	10.0	10.0
Primary Metals	3.2	3.0	2.8	2.6	2.4
Food Products	4.1	4.0	3.9	3.8	3.7
Refining	1.1	1.1	1.1	1.1	1.1
Other Manufacturing	5.1	5.7	6.4	7.0	7.7
Metal Mining	2.0	2.0	2.5	2.5	3.0
Coal Mining	1.2	1.7	1.9	1.9	1.9
Other Mining	.8	.8	.8	.8	.8
Oil and Gas Extraction	2.5	2.5	2.5	2.5	2.5
Heavy Construction	4.2	4.2	4.2	4.2	4.2
Railroads	6.3	6.3	6.3	6.3	6.3
Federal Government	14.2	14.7	15.4	16.2	16.8
Total Basic	89.2	89.8	90.8	90.9	91.4
Other Construction	10.3	11.4	12.5	13.6	14.6
Other Transportation	6.9	7.7	8.6	9.3	10.0
Utilities and Communications	8.0	8.2	8.6	9.3	10.0
Trade	73.4	81.1	90.8	98.9	106.0
Services	58.9	67.2	76.4	83.2	89.2
Finance, Insurance, Real Estate	12.3	13.7	15.3	16.7	17.6
State and Local Government	56.3	61.1	68.2	74.4	79.8
Non-Farm Proprietors	40.6	44.1	49.2	53.7	57.6
Total Non-Basic	266.7	294.5	329.6	359.1	384.8
Population (Employment Based)	783.2	822.6	869.9	909.9	952.4
Natural Growth (cohort)	754.0	795.6	832.4	863.2	893.8

Employment Assumptions

As mentioned earlier, the basic projections are subjective. Originally, we had hoped to project employment (when feasible) as a direct function of specific output and productivity forecasts. This was not entirely possible for several reasons. First of all, only limited data were available for the agricultural, wood products, mining, and primary metals sectors; and, secondly, when data were available the employment data were not generally product specific.

Agriculture - Employment in this sector is likely to decline in the future, just as it has in the past. We anticipate gradual increases in cattle marketings and grain production. This, coupled with increasing productivity (i.e., capital intensity and improved management techniques), will probably result in further employment reductions.

Wood Products - Employment in this industry is highly influenced by national income, interest rates and credit availability. Industry experts have expressed doubt over the fact that employment could ever exceed the 1973 level, i.e., the greatest housing cycle peak ever experienced. During this "boom period" statewide employment briefly reached 10,000 workers. This view is supported also by declining timber availability, increased restrictions on logging, and enlarged wilderness areas. We do, however, expect some expansion in processed materials such as plywood and particle board output. Additionally, many long-term national construction projections are optimistic. Nevertheless, actual timber harvest is likely to remain relatively stable in the future.

Primary Metals - We assume that the historical employment decline will continue even though mining activity may increase. It is unlikely that any employment gains in this industry are possible as a result of

steadily increasing productivity.

Metal Mining - Several new mines are likely to open within the next decade. Permits have already been filed. In addition to newly discovered copper and zinc deposits, some potential exists for expanded chromium and iron extraction. As a result, we do not expect the historical decline to continue. But rather, we believe that employment will gradually grow. Actual output is, however, likely to expand more rapidly than employment as a result of technological advances.

Food Products - The projections for this sector are the result of a simple time trend. In other words, we believe that the declines since 1960 will be the rule in the future as well.

Refining - Employment in this sector has been very stable and, as a result, we have merely held it constant over the projection period. This, of course, assumes no significant input supply bottlenecks, i.e., ample crude feeder stock.

Other Manufacturing - This aggregate sector has experienced considerable growth in the past. We expect this trend to continue.

Non-Metal Mining - No growth is likely in this category, essentially sand and gravel extraction.

Oil and Gas - Accurate projections for this industry are nearly impossible. Many of the fields presently in operation are declining areas. However, new exploration is already in progress in western Montana. As a result, we have held employment constant at the 1977 level.

Heavy Construction - Major variations in this sector have been related to dam and highway construction projects. The projections represent a simple long-term employment average. No major expansion is expected at least within the next few years.

Rail - We expect that employment in railroads will stabilize at near the current level.

Federal Government - If the past trend holds, this sector will substantially increase. However, federal government centralization might slow this assumed growth.

Coal - The employment projections were produced using a constant output/employment ratio and relatively low coal output levels. The effect of environmental restraints and energy policy are totally uncertain.

Disaggregation of Montana Non-Basic Employment Projections

Non-basic employment projections for Montana were disaggregated on the basis of historical trends (1960-1975) and subjective considerations of possible changes in these trends. Each of the sector projections are discussed briefly.

Other Construction - Three-year averages centered on 1960, 1965, 1970, and 1975 were used to establish 1960 to 1975 growth trends. These data are presented in the following table.

Other Construction Employment
(3-year averages)

	1960	1965	1970	1975
Employment (000's)	7.8	7.4	6.3	9.4
Per cent of Non-basic	5.5	4.8	3.5	4.2
Growth (annual rate)	n/a	-1.0	-3.0	9.8

The average annual growth rate for this sector (1960-1975) was 1.4 per cent. However, employment actually decreased to 6,300 in 1970 and then rebounded to 9,400 in 1975. Current indications are that employment in this sector is still showing rapid growth and future prospects for growth appear bright, i.e., long-range national housing construction projections. For this reason, an annual growth rate of approximately two

per cent was assumed throughout the projection period.

Other Transportation - Annual growth rates for this sector have averaged about three per cent since 1960. This stable growth trend is assumed for the projection period.

Utilities and Communications - Annual employment growth from 1960 to 1975 averaged 1.3 per cent per year. The table below illustrates this growth as well as the per cent of total non-basic employment.

Utilities and Communications Employment

	1960	1965	1970	1975
Employment (000's)	6.0	6.0	6.2	7.2
Per cent of Non-basic	4.3	3.9	3.4	3.2
Growth (annual rate)	n/a	0.0	0.7	3.2

Employment in this category was stable until after 1970. We believe that most of the growth since 1970 was in communications and public utilities, not electrical generation. Current indications are that this sector will continue to grow at a rate of only slightly greater than the 1960-75 rate. Therefore, a growth rate of two per cent was assumed for the projection period. This assumption is supported by long-term growth levels anticipated by Mountain Bell which comprises nearly fifty per cent of the total sector employment.

Trade - Employment in this sector grew at an annual rate of roughly three per cent since 1960. We believe that this growth rate will also hold in the future.

Services - Because of the rapid expansion that occurred in this sector since 1970, one must use extreme caution in projecting the long-run patterns. The following table reveals this unusual growth.

Service Employment

	1960	1965	1970	1975
Employment (000's)	25.0	27.9	35.5	46.7
Per cent of Non-basic	17.7	18.1	19.6	21.0
Growth (annual rate)	n/a	2.3	5.4	6.3

The current growth rate is assumed to continue until 1990. After 1990, the growth rate is assumed to equal that of total non-basic employment. The average growth rate for the entire projection period is slightly less than the 1960-75 increase.

Finance, Insurance, Real Estate - Growth in this sector is expected to slow somewhat when compared to historical trends. This is indicated by an assumed growth rate of 2.8 per cent for the projection period compared to the historical growth of 3.3 per cent.

State and Local Government - The average annual growth rate for employment in state and local government was 4.7 per cent since 1960. Most of this growth has occurred since 1970. Increases of this magnitude are not expected in the future. Therefore, an average rate of 2.5 per cent was assumed for the projection period. Additionally, most of the growth is likely to be found in local government and not the state government sector.

Non-Farm Proprietors - Growth in this sector is expected to slow somewhat when compared to the 1960-75 increase. An assumed rate of 2.8 per cent was used for this sector.

Adjustments - When the above growth rates were applied to 1975 employment data and adjusted to the historical per cent of total non-basic employment (if meaningful) a total was tabulated by adding employment in all sectors. If the sum deviated from the projected total, an adjustment

factor was calculated using the two totals. This factor was applied to all non-basic sectors so that, in the end, both projections were equal.

Long-Term Growth Implications

The employment based population projections imply slight in-migration throughout the entire projection period. The projected rate of in-migration is, however, somewhat less than that experienced from 1970-1977.

Uses of MASS

MASS provides an efficient mechanism for updating both state and county level employment and population projections as the need arises. The system has also served useful in simulating the effects of assumed developments in several Montana counties. We anticipate that the uses of MASS will expand in the future primarily in the areas of economic impact analysis and long-term growth planning.

SECTION III

Montana's Future: A Mechanism For Balanced Growth

Section III. - Montana's Future - A Mechanism for Balanced Growth

To provide a vehicle for policy formulation and to focus state planning and legislative effort, Governor Judge has recently created the Governor's Committee for Balanced Growth. The committee has the broad mandate to bring forth and discuss innovations which will sustain the quality of life in Montana and ensure a prosperous economic future for all citizens.

The committee, which is divided into four task forces, will consider the full spectrum of issues in the following areas:

(I) Energy, Environment, Natural Resources

(II) Urban/Rural Development

(III) Human Services

(IV) General Government

Each of the task forces consists of the directors of the departments most closely associated with the four main topic areas. In addition, four professionals have been assigned to the project to provide technical assistance and resource support for the task forces. Citizen participation will also be actively solicited.

The overall goal of the "balanced growth" program is to explore all legitimate measures within the domain of state government authority that are consistent with a healthy living and job opportunity environment. In other words, the broad intent of the program is to foster acceptable growth at a rate sufficient to provide a high quality of life for all Montanans. Clearly, a program of this magnitude will be difficult, but the issues are of such great importance that they cannot be overlooked.

Examples of issues which will be addressed include:

(1) Will Montana's population continue to grow as a result of immigration? What type and how many jobs will be needed to support future population levels?

(2) In which economic sectors lie the best potential for growth? Is growth in these sectors desirable?

(3) Will the nation's needs for natural resources (coal, water, lumber, ore, etc.) place unreasonable strain on Montana's environment?

(4) Is the state capable of stimulating desirable growth without infringing on the private sector? How can this be done, and have other states been successful?

(5) Should the state retard growth?

(6) How can state business regulation be streamlined and still remain effective? Is less regulation better than more?

(7) What is the role of state government within the economy?

(8) Should the state assist local government through revenue sharing?

(9) Can human service programs be improved? What level of services should be provided?

(10) How can state government become more responsive to the needs of Montanans?

These questions are by no means exhaustive of the type which must be both asked and answered in the continuing process of attempting to make government more responsive to citizens' needs. A structured effort of defining economic and social goals through public input, and analysis of economic feasibility, will result in more appropriate growth and environmental policies.

The program, which has just begun, will continue for the next year. Each task force is currently in the process of reviewing key issues within their topic areas. Certain of these issues will have an end product developed by September for citizen review; a more significant number will be ready by the beginning of the next Legislature. Final papers, recommendations, etc., will be transmitted to the Governor for preparation of bills related to balanced growth.

Even though the program receives minor Public Investment Plan direct funding, the output of the process will provide a valuable contribution toward better understanding the nature of Montana's economy and the desires of Montana residents concerning growth. Although "Balanced Growth" is presently only a concept born in reaction to unanticipated economic and social changes, the policies which will be developed will represent a consistent strategy in resolving growth problems in Montana.

SECTION IV

Montana's Socioeconomic Goals For 1985

Section IV. - Montana's Socioeconomic Goals for 1985

Montana has much to offer to the rest of the country -- a wealth of natural resources, including coal, bountiful agricultural products, and recreational opportunities created by geographic diversity. But, more important, Montana offers its residents a quality of life that they are offered by being here and have earned by collectively making it the way it is today.

There is a full realization in Montana state government of the fact that government must reflect the control by the people of Montana, and that control must be faithfully executed as the will of the people of this state.

Because of the sparseness of our population, the wealth of our resources and the realization of the historical realities of Montana's past, the people of Montana require that national policies take particular concern of our state's interest in the future. Montana is vitally interested in sharing our resources on the basis of orderly development, obtaining benefits from their present utilization and guaranteeing a solid legacy for the future.

The overall philosophy and principles of balanced growth can be expressed in a set of goals for Montana. These goals state a combination of desired results and serve as guideposts for governmental action. The goals are a link between the philosophy of balanced growth and the means of accomplishing balanced growth. By stating as clearly as possible the results desired, the goals provide the basis for developing the methods to accomplish the results.

In considering the goals it should be understood that the combination of goals may be as important as any single goal. Because any one may

limit the degree to which another can be achieved, the concurrent achievement of these goals reauires creative and, perhaps, complex action.

The achievement of these goals would not be the sole or even, in some cases, the prime responsibility of state government. These goals indicate a state of affairs to which state government would be expected to make a positive contribution, but whose accomplishment would depend importantly on local, regional and national efforts as well as individual and private sector activities.

SOCIAL GOALS

Social patterns should be encouraged that support individuals in family groups to serve the needs of their members for personal care and development.

Individual sense of security and freedom from fear for life or property should be guaranteed.

The existence of a strong economy, stable and supportive family groups, a safe and healthy environment for living and working, and an effective educational system should minimize the dependence of individuals for basic support by the public. Individuals who are unable to provide for themselves should be provided the basic necessities of life in a manner that protects their dignity and within their home communities if possible.

An equal opportunity should be available for individuals to develop their capacities to their potential. Personal development should not be impeded by discrimination by race, sex, religion, creed, or national origin.

The general incidence of disease and disability should be reduced.

Access to necessary medical care shall not be denied for financial reasons. The total cost of medical care should be at a level that can be effectively borne by Montanans, individually or together.

Opportunities for learning should be as diverse and as widely available as possible. Knowledge of Montana and its people, its resources, and its heritage and culture should be continuously developed and made available to the public.

ECONOMIC GOALS

The Montana economy should be as self-sufficient and independent as possible, with the accumulation of capital occurring on a self-sustaining basis.

Montanans should have expanded opportunities to own and manage their own competitive business enterprises.

Jobs should be available for Montanans that are sufficient to avoid unacceptable levels and patterns of unemployment in the state and that provide opportunities for meaningful and satisfying work.

Jobs and business activity should be distributed to the degree possible, in a manner that avoids excessive growth in areas limited in their capacity to absorb growth. Growth should be encouraged in areas that desire and have the capacity for additional growth.

The income gap between Montana and the rest of the nation should be progressively reduced.

Montana should influence the major corporate or federal decisions that affect the development of resources in the state.

A strong agricultural base, with dispersed ownership, should be retained. Prime agricultural resources should be protected from unnecessary diversion to other uses. Because economic activities in Montana fundamentally affect all aspects of the quality of life in the state, the development of the economy should occur in a manner that is supportive of the state's goals in all areas.

ENVIRONMENTAL GOALS

Whenever possible, natural resources should be used and maintained in a condition that allows for their reuse in the future on a sustained yield basis. Whenever reuse is not possible, the loss of a resource from the resource base should be mitigated.

The environment of the state should not be significantly degraded, and levels of pollution should be decreased for those areas with recognized pollution problems.

Areas with high quality environmental, historical, or recreational values should have those values protected.

GOVERNMENTAL GOALS

State government should guarantee the constitutional rights of every individual and should respect those rights in the conduct of all its activities.

State government should effectively achieve the purposes assigned to it at the least possible cost and with the least possible interference with individual freedom.

State government should be open, accessible, and accountable to the public.

Services of general public benefit should be financed on the basis of the ability to pay as determined by earning capacity and net wealth.

SECTION V

Current Projects

Section V. - Current Projects

All projects, past, current, or future, have or will be directed toward gaining greater insight into the nature of Montana's economy, the desires of its residents and the promotion of environmentally clean industrial growth. In addition to the MASS model, the following Projects are currently underway.

The Governor's Economic Report

This report is updated as well as expanded every two years to provide the public and private sectors with an indication of the state's economic condition. The report, which is currently being developed, will be completed by January, 1979. To provide the best information possible, the report represents a team effort by staff economists, university personnel, and business representatives.

This year the report will contain the following sections:

(1) a description of the current and expected levels of national business activity; most of this information will be supplied by Chase Econometrics;

(2) an historical review of Montana employment, unemployment, and income levels;

(3) projections of economic activity in Montana to the year 1990;

(4) detailed reports on major Montana industrial sectors; and

(5) highlights of the Governor's Balanced Growth Program.

The report is not technical in nature, but is designed to provide an overview of Montana's economy, issues faced by major industries, and long-term projections, so that the casual reader may better understand the State.

Cooperative Land Use Mapping Program

This program represents a cooperative effort of all state and federal agencies who commonly utilize county land use maps. The goal of the program is to reduce unnecessary data collection and mapping while serving the general needs of all involved agencies. At the present time, approximately 90 per cent of the data collection (10 land use categories) is complete, and 43 of the 56 county maps are ready for final drafting. Although only about 10 maps have been printed in final form, all maps should be completed on schedule, July, 1979.

Base maps have been supplied by the Montana Highway Department while final draft copies and negatives have been produced by the Montana Department of Natural Resources and Conservation. Final printing is being done by the Cartographic Division of the Soil Conservation Service in Portland. All final maps are being distributed to the commissioners and conservation offices in each county by the Planning Division of the Montana Department of Community Affairs which has coordinated the entire effort.

At the present time, there are no plans to computerize the information for future updating. However, if the maps are useful and serve the desired purpose, computer updating may be explored.

On the basis of the maps completed (Lewis and Clark, Cascade, and Hill Counties), the program appears to have greatly improved state and federal land use awareness, an important contribution to the Old West Commission's planning effort. Maps are or will shortly be available from the Department of Community Affairs, Helena, Montana. All inquiries should be addressed to this agency.

RARE II Monitor

Public Investment Plan monies currently fund a a position within the Governor's Office of Commerce and Small Business Development to monitor all essential decisions taking place in the RARE II process. RARE II stands for Roadless Area Review and Evaluation, and represents a thorough and complete review of how public lands should be utilized. At the present time, approximately 6.5 million acres of roadless national forest grasslands in Montana are being considered for possible inclusion in the National Wilderness Preservation System. In view of the importance of the wood products industry in Montana, the outcome is anxiously awaited. The decisions resulting from RARE II represent a classic trade-off between jobs and land use.

The Governror's Council of Economic Advisors

Governor Judge has recently established an economic advisory body consisting of fourteen business, labor, environmental, agricultural, and university representatives. It is the function of the Council to advise the Governor with respect to economic policy matters. It will be the function of the Governor to execute and implement through the appropriate agencies of the executive branch of the government of the State of Montana such of the Council's findings and recommendations as he considers appropriate.

The Council is organized under the following guidelines.

(1) To sustain and continually improve a climate in which business in Montana can flourish in order that this nation and state continue to flourish.

(2) To recognize that private enterprise and entrepreneurship on the part of businesses of all sizes are essential to the preservation of individual liberty and freedom of all our citizens.

(3) To recognize that a healthy and prosperous business community with the benefits thereby derived in terms of employment and in goods and services provided is essential to the economic and social well being of the citizens of our state now and in the future.

(4) To preserve, protect and foster the creation, development and balanced growth of business in Montana.

(5) To insure that the full resources of all agencies of the executive branch of the government of the State of Montana foster and assist the business community to help create favorable conditions for small businesses and to take such other measures as may be appropriate to the interests of all businesses.

(6) To engage in a vigorous program looking toward the development of new business opportunities and the expansion of existing businesses to the end of creating a broader economic base in Montana and creating new job opportunities for Montanans.

It is the function of the Governor's Council of Economic Advisors to advise as to such measures as can be undertaken by the executive branch to achieve the policies set out above including, but not limited to:

(a) conducting studies utilizing members of the Council and, where necessary or desirable, drawing on the talents and expertise of people from both the public and private sectors to assist in such studies;

(b) conducting hearings, workshops, seminars and meetings throughout the state;

(c) making recommendations to the Governor and directors of state departments of the executive branch as to ways and means by which the executive branch can implement the policies set out above; and

(d) to draw upon the resources of the Governor's Office, the Governor's Office of Commerce and Small Business Development, the departments of the executive branch, the Montana University System, the private institutions of higher education and the talents of the private economic sector of Montana, including business, labor, agriculture and all groups and individuals in Montana willing and able to assist the Council in the achievement of these policies.

SECTION VI

Future Projects

SECTION VI. - FUTURE PROJECTS

The following projects are being considered as possible candidates for future Public Investment Plan funding.

Montana Indicators

This project would result in the development of a series of economic indicators. Sectoral detail in both earnings and employment would be stressed. The project, which would be patterned after the national indicators series, would serve as a useful measure of the current economic health of select industries (wood products, mining, food products, agriculture, trades, etc.) and would be capable of "flagging" negative changes in the economy as they occur.

MASS

The Montana Alternative Simulation System should continue to be funded. Within the next year, the model will be restructured to become more easily updated.

Screening Matrix

This project, similar to those underway in Washington, Missouri and Nebraska, is an attempt to determine and rank industries by industrial feasibility. The approach utilizes comparative cost analysis of a wide range of locational factors to determine a general index of potential business development.

Balanced Growth Program

Although this program is not a Public Investment Plan project, the analysis and policy setting nature of this program will provide valuable insight for future use of Investment Plan funds. A detailed report on

this program will be included in the next Investment Plan document.

Impact of Agriculture Study

The five states of the Old West Region share few common economic ties except for their mutual reliance on agriculture as a basic industry. With the exception of Wyoming, real income changes in each state appear to be largely determined by variations in farm prices and/or yields. Furthermore, variations in farm income appear to translate into direct and occasionally major changes in state revenue collections. Even though farm income variations are largely beyond the control of state policy, it is critical that the true effects of agriculture on income and fiscal stability be understood. Such an understanding is prerequisite to sound budget analysis and, perhaps more importantly, to economic development planning within the region.

The purpose of the study will be to investigate the following issues to gain, if possible, an improved understanding of the economic impact of agriculture.

(1) Review the definition and estimation procedures employed by the Bureau of Economic Analysis for the farm income series.

(2) Analyze the secondary income impacts (i.e., multiplier effects) of farm income on other industrial sectors.

Public Investment Inventory Matrix

The purpose of this project is to investigate, define, design, and develop a graphic portrayal of significant public works capital or incentives that are appropriated to sectors by area of geographical location.

There exists today several vehicles of presentation, as well as several uses for "cataloging of governmental spending". The diversity of this process has brought little to bear of the effectiveness and the usefulness

of these "several" in the context of management information for executive policy making. Any attempt under these existing vehicles to bring them to a comparative semantics or statistics only leads to more apples and oranges comparisons.

The purpose of this project is both in theory and in fact not to reinvent the wheel. The purpose is rather to assemble in a very basic term the "actuals" involved in public works expenditures and/or incentives. This element of the presentation will describe non-factored actuals, representing a picture of a given period of time by defined and specific program sector. The second element of this presentation will be geographically locating the elements presented in the actual public works statistics. The importance of geographically locating the public works expenditures or incentives allows for the element of commonality required in the executive decision making process.

Public policy can either be creative or responsive in nature, but, in either case, it must be based on a judgment of some type of information. It is the intent of this effort given the right appropriations of time and resources that a basic, realistic piece of information that can compare to other elements and other data basis will be developed and be able to be effectively used by executive decision makers in both creative and responsive public policy.

Determinants of Growth Study

The purpose of this project would be to analyze the primary determinants of growth or decline within Montana. Analysis would be focused on county level two digit data. Patterms of growth including employment, unemployment, income and population change would be analyzed.

At the present time, very little is known about the nature of growth within Montana. This study would attempt to answer basic questions, such as:

(1) Why is unemployment typically higher in area of rapid employment growth?

(2) Has substantial in-migration taken place in areas unrelated to employment growth and is this pattern likely to continue?

(3) What is the nature of a depressed area?

(4) How does seasonality effect unemployment in Montana?

(5) Will non-basic employment growth show in the future?

Basically, the study would address issues of growth and data reliability and would provide an update of the 1968-69 Montana Economic Study.

"A STATEMENT OF A GENERAL DEVELOPMENT STRATEGY TO HELP FULFILL THE PLAN'S GOALS AND OBJECTIVES"

The citizens of Montana consistently have shown a consciousness about their desires for the future of Montana - its people - its land - its air - its water - and its economic well being. Therefore, Montanans have been activists in the establishment of legislation and a new Constitution that guides the present as well as the future of this great state.

State government has been shaped by this citizens' consciousness. Government, as the trustee of this consciousness, has the responsibility to enunciate and implement those programs that will provide for and protect the future of Montana. As these programs form a development strategy, the single most important element of that strategy must be public participation.

The general development strategy therefore reflects the desires and needs of the citizenry of Montana. The most descriptive term that this strategy can be enunciated by is that of "Balanced Growth." Balanced growth represents the even mix of reality and idealism, industrialization and environmental perfection, economic and social opportunity, rural and urban needs and many others, none of which are singularly exclusive

Economically, Montana is small and relies on national economic policies and market factors which are often beyond our own control. We cannot unilaterally insure continued production, fair market prices, responsive federal economic development assistance, or environmental quality. We can and we must have a meaningful influence on those activities. We also can have a positive impact on improving Montana's economic foundations - such as roads, water and water treatment, zoning, land use planning,

environmental statutes, taxation, schools and hospitals, which can, if wisely handled, simultaneously foster the increased economic opportunity and contribute to the quality of life.

The Montana economy has always grown - although sometimes slowly and often without direction - with a quality of life that our citizens respect and protect. The strategy for the future is to continue to develop methods of forecasting potential growth areas, establishing criteria to measure the benefits and disadvantages of growth, and designing measures to direct change. Montana must have an initiative change policy rather than merely a reactive one. Balanced growth is the instrument of our future strategy.

"A STATEMENT SUMMARIZING BOTH SHORT-RUN AND LONG-TERM PROJECTS TO IMPROVE THE PUBLIC INVESTMENT PLANNING PROCESS, INCLUDING NEEDED RESEARCH AND DATA COLLECTION"

Public Investment Planning represents today a critical element, possibly even a cornerstone, to the function of government. The increasing complexity of economics have left behind those days of balance sheet decisions. Today, the prudent man, company or community is the one that anticipates its role under changing conditions and moves in time to fill that role. Survival in the 1970s and 1980s will not go to the immutable, but to the adaptable. This realization in itself may be the most important change of all, for in the past, survival was considered the reward for resisting changes.

In preparing for a new future, about which we can only be certain that it will be different, is a challenge to government's creativity. It is far more than adaptability. It will be a creative intelligence that will wrest the control of the future from chance.

Montana well recognizes the importance of Public Investment Planning. Montana also recognizes that the state-of-the-art of this process is an evolutionary process. It requires constant change and adaption. For this reason, the following research and data collection activities require attention.

(1) Demographic and economic data do require more timely output.

(2) Uniformity of terms, definitions, and sources of information need be addressed quantitively, in light of the burgeoning data banks in government, business, and research.

(3) The accuracy and relevance of current data bases need to be evaluated. Most economic and demographic data are estimates as opposed to a precise value. Therefore, more time should be spent analyzing the

potential error factor embodied within the data if sound analysis and planning are to result.

(4) Economic problem areas should be defined in order to focus public investment assistance where it is needed most. In addition, it is important to review the current expenditure pattern of public investments to know whether or not assistance is being targeted in a reasonable manner, i.e., by program and geographic area.

(5) There is a need for greater citizen participation within the public investment process. Public attitudes toward economic growth and planning should be more carefully reviewed if future programs are to be representative of public needs.

(6) Future research projects should build upon past efforts in a unified and systematic manner. There is also a definite need to identify research goals if public investment funded analysis is to be put to good use.

APPENDIX A

MASS Data Inputs and Projects

APPENDIX

DATA INPUTS AND PROJECTIONS

This appendix contains information concerning the projections produced by the MASS system. Both employment and population projections are included. In addition, principal data inputs and assumptions used in MASS to help produce the projections are discussed.

Principal Data Inputs and Assumptions for the Cohort Model

As was described earlier, the cohort-survival model projected natural increase population and employment by county (assuming no net migration). There were four main data series used in these projections: 1970 population, birth rates, survival rates, and labor force participation rates.

County specific population by age and sex was available from the 1970 Census of Population.[1] These data were by single year of age. They served as the starting point for the natural increase projections.

Two types of fertility rate data series were used in the cohort model. First, statewide base year fertility rates were constructed and used as points of departure. These rates were derived from unpublished birth information available from the Montana Department of Health and Environmental Sciences, and 1970 Census of Population data for females ages 15 through 45. Table 1 presents the computed Montana fertility rates for both Indians and non-Indians. The second data series consisted of national fertility rate projections constructed by the Bureau of the

---

[1]Second count tape obtained from the Bureau of the Census.

TABLE 1

MONTANA FERTILITY RATES
(per 1,000 women)

Age	Non-Indian	Indian
15	6.15	24.40
16	23.09	79.85
17	49.42	143.39
18	105.85	220.50
19	199.92	334.55
20	208.88	342.63
21	233.34	322.77
22	230.24	355.26
23	199.67	305.31
24	220.00	297.80
25	181.51	256.01
26	166.82	240.08
27	143.56	184.43
28	135.88	167.50
29	11.63	187.76
30	90.89	137.06
31	73.95	154.00
32	73.18	142.25
33	56.77	104.05
34	49.71	120.00
35	37.92	62.93
36	37.74	60.61
37	29.43	53.17
38	26.83	75.52
29	20.20	49.65
40	15.68	33.73
41	10.01	27.78
42	8.03	19.32
43	6.25	13.89
44	3.37	2.58
45	2.43	3.37

Source: Derived from 1970 Census of Population information and unpublished birth data available from the Bureau of Records, Montana Department of Health and Environmental Sciences.

Census.[2] Montana non-Indian fertility rates were assumed to converge with "Series I" national projections in 1990 and converge with the national pattern after that date. "Series I" is the higher projection and was picked since Montana's fertility rates have been higher than the nation's historically. Indian fertility rates were assumed to parallel national rates throughout the projections period.[3]

The survival rates used in the natural increase population projections were national figures for 1972 trended to an ultimate rate for the year 2000. Differences between Montana and U.S. rates are minimal.[4] The 1972 and ultimate (2000) rates are presented in Table 2. As can be seen from this table, survival rates were projected by the Bureau of Census to change very little.

---

[2]U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 601, "Projections of the Population of the United States: 1975 to 2050", (Washington, D.C.; U.S. Government Printing Office, 1975, p. 124.

[3]Montana Department of Community Affairs, The Montana Futures Process, Appendix III.

[4]Ibid.

[5](See page 77) U.S. Bureau of the Census, Census of Population: 1970, General Social and Economic Characteristics, Montana PC (1)-C28, (Washington, D.C.: U.S. Government Printing Office, 1971, Table 121).

TABLE 2

U.S. SURVIVAL RATES AND PROJECTIONS: 1972 AND 2000

Initial Age	Terminal Age	1972		2000	
		Male	Female	Male	Female
Births	Under 1	.982470	.986060	.988440	.990940
Under 1	1	.997328	.997870	.998127	.998529
1	2	.998850	.999069	.999047	.999243
2	3	.999265	.999405	.999047	.999243
3	4	.999417	.999528	.999517	.999616
4	5	.999484	.999589	.999566	.999663
5	6	.999493	.999613	.999562	.999676
6	7	.999506	.999636	.999563	.999690
7	8	.999538	.999660	.999586	.999708
8	9	.999595	.999688	.999635	.999732
9	10	.999662	.999717	.999698	.999759
10	11	.999708	.999737	.999743	.999779
11	12	.999686	.999736	.999724	.999781
12	13	.999556	.999702	.999601	.999753
13	14	.999321	.999636	.999378	.999698
14	15	.999029	.999552	.999100	.999626
15	16	.998734	.999464	.998823	.999551
16	17	.998472	.999389	.998579	.999490
17	18	.998260	.999339	.998391	.999454
18	19	.998110	.999315	.998267	.999443
19	20	.997987	.999303	.998172	.999445
20	21	.997861	.999286	.998077	.999444
21	22	.997769	.999270	.998013	.999440
22	23	.997756	.999260	.998021	.999438
23	24	.997815	.999255	.998095	.999435
24	25	.997917	.999251	.998209	.999432
25	26	.998026	.999246	.998329	.999427
26	27	.998106	.999228	.998426	.999415
27	28	.998135	.999188	.998479	.999388
28	29	.998106	.999126	.998483	.999348
29	30	.998041	.999047	.998456	.999295
30	31	.997967	.998961	.998421	.999235
31	32	.997888	.998873	.998379	.999172
32	33	.997802	.998786	.998325	.999110
33	34	.997707	.998702	.998257	.999048
34	35	.997595	.998612	.998170	.998981
35	36	.997455	.998509	.998057	.998903
36	37	.997281	.998391	.997914	.998807
37	38	.997068	.998255	.997742	.998688
38	39	.996813	.998100	.997536	.998545
39	40	.996519	.997930	.997298	.998383

TABLE 2 CONTINUED

U.S. SURVIVAL RATES AND PROJECTIONS: 1972 AND 2000

Initial Age	Terminal Age	1972 Male	1972 Female	2000 Male	2000 Female
40	41	.996190	.997745	.997027	.998207
41	42	.995822	.997540	.996714	.998020
42	43	.995413	.997309	.996350	.997821
43	44	.994961	.997052	.995935	.997610
44	45	.994463	.996771	.995469	.997384
45	46	.993918	.996469	.994956	.997140
46	47	.993319	.996155	.994405	.996882
47	48	.992663	.995833	.993821	.996611
48	49	.991945	.995503	.993202	.996327
49	50	.991166	.995155	.992539	.996027
50	51	.990326	.994780	.991819	.995705
51	52	.989414	.994376	.991016	.995357
52	53	.988421	.993940	.990108	.994981
53	54	.987341	.993469	.989090	.994574
54	55	.986180	.992967	.987972	.994136
55	56	.984940	.992433	.986771	.993667
56	57	.983599	.991850	.985496	.993169
57	58	.982132	.991200	.984147	.992642
58	59	.980530	.990485	.982719	.992085
59	60	.978809	.989687	.981213	.991476
60	61	.976982	.988809	.979611	.990801
61	62	.975031	.987924	.99835	.990091
62	63	.972930	.987102	.975802	.989377
63	64	.970669	.986329	.973497	.988648
64	65	.968251	.985550	.970967	.987869
65	66	.965680	.984671	.968380	.986991
66	67	.962947	.983545	.965468	.985935
67	68	.960037	.982045	.962545	.984630
68	69	.956936	.980133	.959515	.983048
69	70	.953626	.977919	.956325	.981246
70	71	.950086	.975521	.952914	.979272
71	72	.946291	.972896	.949282	.977075
72	73	.942215	.969956	.945442	.974574
73	74	.937827	.966680	.941374	.971743
74	75	.933083	.963197	.937031	.968635
75	76	.927938	.959250	.932361	.965277
76	77	.922381	.954973	.927329	.961501
77	78	.916406	.950107	.921904	.957105
78	79	.909981	.944589	.916041	.952019
79	80	.902910	.938407	.909613	.946319
80	81	.894996	.931598	.902501	.940106
81	82	.886413	.924273	.894788	.93330
82	83	.877506	.916551	.886638	.925881
83	84	.868417	.908462	.878095	.917708
84 and over	85 and over	.814702	.849132	.824272	.855543

Source: U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 601, "Projections of the Population of the United States: 1975 to 2050", (Washington, D.C.: U.S. Government Printing Office, 1975), p. 133.

County specific labor force participation rates were used in the cohort model to help project labor force and employment levels associated with natural demographic forces. Detailed county labor force participation rates by age and sex were available from the 1970 Census.[5] These were converged to projected equivalent national rates for 1980 and held constant at that level for the remainder of the projection period. The national projections were constructed by the Bureau of Labor Statistics, U.S. Department of Labor and are presented in Table 3.

TABLE 3

NATIONAL CIVILIAN LABOR FORCE PARTICIPATION RATES
(per cent of population in labor force)

	ACTUAL		PROJECTED		
Sex and Age Group	1970	1975	1980	1985	1990
MEN					
Total, 16 years & over	79.3	77.8	77.8	77.5	77.3
16 and 17 years	46.3	48.6	50.6	50.7	50.8
18 and 19 years	64.6	70.7	71.8	71.4	71.4
20 to 24 years	8.28	84.4	84.2	83.0	82.1
25 to 34 years	96.6	95.1	95.2	94.9	94.7
35 to 44 years	96.6	95.7	95.5	95.1	94.8
45 to 54 years	94.2	92.0	91.2	90.6	90.2
55 to 64 years	81.8	75.7	74.3	71.6	69.9
65 years and over	26.9	21.7	19.9	18.0	16.8
WOMEN					
Total, 16 years & over	43.0	46.3	48.4	50.3	51.4
16 and 17 years	34.9	40.2	43.1	45.4	56.9
18 and 19 years	52.0	58.1	60.0	61.5	62.5
20 to 24 years	57.4	64.0	68.4	72.5	75.2
25 to 34 years	44.8	54.5	57.4	61.2	63.5
35 to 44 years	50.7	55.9	58.3	61.1	63.0
45 to 54 years	54.4	54.6	57.1	59.1	60.3
55 to 64 years	42.5	41.0	51.9	42.2	42.3
65 years and over	9.6	8.2	8.1	7.8	7.6

Source: Howard N. Fullerton, Jr., and Paul O. Flain, "New Labor Force Projections to 1990", Monthly Labor Review, Vol. 99, No. 12, December, 1976. p.5.

[5]See Page 74.

Principal Data Inputs and Assumptions for the Economic Model

The major inputs and assumptions of the economic model consisted of the classification of sectors into basic and non-basic categories and the projections of basic employment by sector and county. Non-basic sectors were also broken down into five groups.

Classification of Basic and Non-basic Sectors

A number of information sources were used in identifying basic sectors. This process resulted in twelve industries being classified as basic for every county, with portions of all other sectors being basic, depending on the county in question. The basic/non-basic classification scheme is presented in Table 4. The mixed basic/non-basic sectors were further grouped into five categories, in connection with estimating non-basic employment using group specific multipliers. These groups were defined as follows:

(1) retail trade, services, and non-farm proprietors;

(2) printing and publishing, other transportation, wholesale trade, finance, insurance and real estate, and federal-civilian;

(3) general construction, heavy construction, special trade construction;

(4) utilities and communications; and

(5) state and local government.

Non-basic employment for the first two categories was also allocated among counties using the methods described earlier.

Data Sources and Assumptions for the Projection of Basic Employment

The basic employment projections were derived from a time trend of employment by basic sectors and county, modified with other information.

TABLE 4

BASIC/NON-BASIC SECTOR CLASSIFICATION SCHEME

BASIC	MIXED BASIC/NON-BASIC
Agriculture	General Construction
Metal Mining	Heavy Construction
Oil and Gas Extraction	Special Trade Construction
Coal and Other Mining	Printing and Publishing
Lumber and Wood Products	Other Transportation
Primary Metal Processing	Utilities and Communication
Other Durable Goods Manufacturing[1]	Wholesale Trade
Food Processing	Retail Trade
Petroleum Refining	Finance, Insurance, and Real Estate
Other Non-Durable Goods Processing[2]	Services
Railroad Transportation	Federal-Civilian
Federal-Military	State and Local Government
	Non-farm Proprietors[3]

Source: Derived

[1]Other Durable Goods Manufacturing consists of furniture and fixtures; fabricated metal products; machinery, except electrical; electric and electronic equipment; transportation equipment; stone, clay and glass products; instruments and related products; and miscellaneous manufacturing industries.

[2]Other Non-Durable Goods Processing includes textile mill products, apparel and other fabricated textile mill products; paper and allied products, chemicals and related products; rubber and miscellaneous plastic products; leather and leather products.

[3]Non-Farm Proprietors consists of all non-agricultural self-employment persons, including independent professional practitioners and entrepeneurs in non-farm businesses. This separate category is required because of data limitations.

Sometimes this information was obtained from published documents. The documents included a study of the supply of crude petroleum to Montana, and several economic demographic projection reports for counties in southeastern Montana.[6] Other unpublished sources were also used. In addition, the trend projections were modified more intuitively to eliminate projections that exploded into extremely high or low (sometimes negative) levels. These adjustments were made most often for sectors with volatile employment levels.

Total Employment Projections

Once basic employment by sector and county had been projected, non-basic employment by county was estimated using a series of multipliers and an inter-county allocation technique. Total employment was then computed as the sum of basic and non-basic employment for each county. Table 5 presents total employment projections by county for the 1980-2000 time period.

---

[6]Paul E. Polzin, "Proposals to Supply Petroleum and Natural Gas to Montana", Montana Business Quarterly, Volume 15, No. 3 (Summer 1977), pp. 3-12; Mountain West Research, Inc., Economic Demographic Study of the Five County Mid-Yellowstone Areawide Planning Organization: Final Report, (Billings, Montana: Mountain West Research, Inc., 1977); Mountain West Research, Inc., Technical Documentation for the MYAPO Economic Demographic Projection Model, (Billings, Montana: Mountain West Research, Inc., 1977); Mountain West Research, Inc., Rosebud County, Montana: Economic-Demographic Analysis Baseline and Projections 1976-1990 (Billings, Montana: Mountain West Research, Inc., 1976); and Mountain West Research, Inc., Rosebudy County, Montana: Economic Demographic Analysis Baseline and Projections 1976-1990, Update (Billings, Montana: Mountain West Research, Inc., 1977).

An analysis of Table 5 leads to several conclusions. First, most of the projected employment growth was in Montana's more "urban" counties.[7] In fact, these counties accounted for nearly 90 per cent of the employment growth between 1980 and 2000. Second, most of the small counties (under 3000 employment) showed no growth or slight employment decreases.

Modest incremental growth was projected for nearly all of the remaining more medium sized counties.

---

[7]Cascade, Flathead, Gallatin, Lewis & Clark, Missoula, Silver Bow, and Yellowstone.

TABLE 5

MONTANA COUNTY EMPLOYMENT PROJECTIONS: 1980-2000
(rounded to nearest 100)

COUNTY	1980	1985	1990	1995	2000
Beaverhead	3330	3400	3400	3400	3500
Big Horn*	4400	4700	5100	5300	5700
Blaine	2800	2900	2900	2900	3000
Broadwater	1400	1400	1400	1400	1500
Carbon	3800	3900	4100	4400	4700
Carter	900	900	800	800	800
Cascade	38,900	40,600	42,300	43,900	45,400
Chouteau	3000	3000	3000	3000	2900
Custer	6600	6800	6900	7000	7100
Daniels	1700	1700	2200	2100	2100
Dawson	5600	5700	5700	5700	5700
Deer Lodge	5900	6200	6000	6100	6200
Fallon	1900	1900	1900	1900	2000
Fergus	5700	5800	6000	6100	6200
Flathead	19,500	21,000	22,200	23,500	24,800
Gallatin	16,500	18,300	19,700	20,900	22,300
Garfield	900	900	900	900	900
Glacier	4500	4700	4900	5100	5400
Golden Valley	400	400	400	400	400
Granite	1100	1200	1200	1300	1300
Hill	8300	8600	8800	9000	9300
Jefferson	1800	1800	1800	1700	1700
Judith Basin	1200	1200	1200	1100	1100
Lake	5400	5500	5500	5500	5600
Lewis & Clark	20,000	11,300	22,600	23,700	25,100
Liberty	1200	1100	1100	1100	1100
Lincoln*	6800	6800	7000	7200	6900
McCone	1600	1500	1500	1500	1500
Madison	2400	2400	2400	2400	2400
Meagher	900	900	900	900	1000
Mineral	1500	1600	1600	1600	1700
Missoula	29,200	31,500	33,500	35,600	38,000
Musselshell	1800	1900	2000	2100	2200
Park	5200	5400	5600	5700	5900
Petroleum	300	300	300	300	200
Phillips	2300	2300	2300	2200	2200
Pondera	2800	2800	2800	2800	2800
Powder River	1300	1300	1300	1300	1300
Powell	3200	3300	3500	3600	3800
Prairie	1000	1000	900	900	900
Ravalli	6000	6200	6400	6600	6800
Richland	5200	5300	5400	5400	5600
Roosevelt	5100	5300	5500	5100	5900
Rosebud*	6000	5000	5000	5000	5000
Sanders	3700	3900	4100	4400	4600
Sheridan	2900	2900	3000	3000	3100

TABLE 5 CONTINUED

Silver Bow	15,600	15,900	16,200	16,500	16,800
Stillwater*	2200	2200	2900	2900	2900
Sweet Grass*	1700	1600	1900	1900	1900
Teton	2600	2600	2600	2500	2500
Toole	3100	3200	3300	3400	3500
Treasure	500	500	500	500	500
Valley	5600	5500	5500	5400	5400
Wheatland	1300	1300	1200	1200	1200
Wibaux	700	700	600	600	600
Yellowstone	52,200	58,700	64,800	70,600	77,300
TOTAL	344,600	358,500	376,500	391,900	410,200

*Total employment includes temporary construction workers. Employment without construction workers is as follows: Big Horn - 4200 (1980), 4000 (1985), 5000 (1985); Lincoln - 6200 (1980); Rosebud - 4600 (1980); Stillwater - 2,200 (1985); and Sweet Grass - 1600 (1985).

Population Projections

As described earlier, population was projected by applying population multipliers (ratios of population to employment) to employment projections. These multipliers were principally ratios of natural increase population to natural growth employment derived from the cohort model. Adjustments were made to these ratios for a few counties where the direction of projected multipliers did not fit recent historical experience. In addition, population associated with identified major temporary construction projects were estimated separately.

Table 6 presents county population-to-employment ratios for the 1980-2000 projection period. As mentioned above, most of these changing ratios were derived from the cohort model. A preponderance of county multipliers decreased over time, reflecting slower natural population growth relative to natural increase employment. This was caused primarily by increasing labor force participation (see Table 3). However, estimated multipliers computed from the cohort model for several counties increased over the projection period. i.e., natural increase population was projected to go up faster than employment. The apparent cause for this was the initial 1970 age/sex distribution for these counties. They either had proportionately more females or younger age cohorts than the state average. Both factors would tend to cause higher population figures for later years.

For some counties, population multipliers derived from the cohort model were adjusted. The counties were: Big Horn, Carbon, Flathead, Lake, Ravalli, and Teton. These adjustments were based on an analysis of the population-to-employment ratios for the periods of 1960-1970 and 1970-1975. This analysis showed either increasing or constant ratios for the counties in question.

TABLE 6

MONTANA COUNTY POPULATION MULTIPLIERS: 1980-2000
(rounded to two decimal places)

COUNTY	1980	1985	1990	1995	2000
Beaverhead	2.49	2.46	2.42	2.40	2.38
Big Horn*	2.63	2.63	2.63	2.63	2.63
Blaine	2.37	2.29	2.24	2.21	2.14
Broadwater	2.24	2.18	2.15	2.11	2.07
Carbon	2.35	2.35	2.35	2.35	2.35
Carter	2.02	2.03	2.03	2.01	2.02
Cascade	2.20	2.19	2.20	2.22	2.23
Chouteau	2.07	2.07	2.03	2.00	1.96
Custer	2.00	1.98	1.96	1.97	1.96
Daniels	1.81	1.76	1.73	1.69	1.63
Dawson	1.99	1.99	1.98	2.01	2.04
Deer Lodge	2.30	2.23	2.13	2.01	1.98
Fallon	2.14	2.13	2.10	2.12	2.12
Fergus	2.33	2.27	2.21	2.20	2.18
Flathead	2.50	2.50	2.50	2.50	2.50
Gallatin	2.43	2.39	2.35	2.34	2.32
Garfield	1.88	1.89	1.89	1.86	1.81
Glacier	2.48	2.39	2.34	2.31	2.26
Golden Valley	2.35	2.34	2.30	2.25	2.23
Granite	2.45	2.37	2.31	2.23	2.12
Hill	2.19	2.18	2.17	2.18	2.18
Jefferson*	3.06	2.89	2.76	2.67	2.55
Judith Basin	2.23	2.17	2.07	2.00	1.92
Lake	3.31	3.38	3.44	3.51	3.58
Lewis & Clark	2.05	2.10	2.16	2.22	2.29
Liberty	2.17	2.14	2.09	2.08	2.06
Lincoln*	2.68	2.65	2.60	2.58	2.55
McCone	1.68	1.66	1.63	1.60	1.56
Madison	2.44	2.43	2.41	2.39	2.36
Meagher	2.59	2.55	2.50	2.44	2.36
Mineral	2.42	2.39	2.42	2.46	2.45
Missoula	2.38	2.36	2.34	2.35	2.34
Musselshell	2.41	2.36	2.28	2.21	2.13
Park	2.45	2.44	2.43	2.42	2.41
Petroleum	2.27	2.21	2.14	2.03	1.91
Phillips	2.36	2.33	2.33	2.35	2.34
Pondera	2.54	2.50	2.43	2.42	2.40
Powder River	1.99	2.01	2.01	2.06	2.09
Powell	2.57	2.49	2.39	2.34	2.27
Prairie	1.86	1.87	1.85	1.80	1.77
Ravalli	3.41	3.49	3.56	3.64	3.71
Richland	2.02	1.95	1.90	1.87	1.82
Roosevelt	2.08	2.04	2.00	1.98	1.95
Rosebud*	2.22	2.23	2.23	2.26	2.28
Sanders	2.37	2.26	2.16	2.10	2.03

TABLE 6 CONTINUED

Sheridan	1.86	1.79	1.74	1.70	1.62
Silver Bow	2.63	2.56	2.49	2.46	2.40
Stillwater	2.56	2.43	2.32	2.24	2.13
Sweet Grass	1.99	1.97	1.95	1.93	1.92
Teton	2.44	2.44	2.44	2.44	2.44
Toole	1.68	1.66	1.64	1.62	1.58
Treasure	2.31	2.14	2.03	1.96	1.87
Valley	2.39	2.38	2.38	2.40	2.41
Wheatland	1.97	1.98	1.98	1.97	1.96
Wibaux	2.27	2.27	2.24	2.20	2.17
Yellowstone	2.10	2.10	2.11	2.13	2.13

*Population multipliers were not used for this county.

One County, Jefferson, required a more extreme departure from the multiplier methodology. The relationship between employment and population in Jefferson County has been rather loose in recent years. This has been the result of the northern part of the County becoming a "bedroom community" for Helena (Lewis and Clark County).

Because of this, an alternate projection methodology was used that involved using a previously published 1980 population projection[8] and tying subsequent Jefferson County growth to that of Lewis and Clark County.

Table 7 presents county level population projections for the period of 1980-2000. As was the case for employment, the state's urban counties accounted for almost 90 per cent of the population growth.[9] Most of the small counties (population under 7,500) were projected to have declining population. These counties showed larger population declines as compared with employment decreases because of falling population multipliers. As before, most of the reamining medium-sized counties (up to 40,000 population) displayed moderate growth.

---

[8]Richard Dodge, Montana Population Projections with County Projections by Age and Incorporated City Projections: 1975-2000 (Helena, Montana: Department of Community Affairs, 1977), p. 27. The projections in this publication were based on a cohort model and historical migration patterns. They represent a purely demographic approach.

[9]The exception to this statement was Silver Bow County, which showed a slight population decline.

TABLE 7

MONTANA COUNTY POPULATION PROJECTIONS: 1980 - 2000
(rounded to nearest 100)

COUNTY	1980	1985	1990	1995	2000
Beaverhead	8,200	8,300	8,200	8,200	8,300
Big Horn *	11,400	12,400	13,400	13,900	14,900
Blaine	6,700	6,600	6,500	6,500	6,400
Broadwater	3,100	3,100	3,100	3,000	3,100
Carbon	8,900	9,200	9,700	10,200	11,000
Carter	1,800	1,800	1,700	1,600	1,500
Cascade	85,600	89,000	93,000	97,300	101,400
Chouteau	6,300	6,200	6,100	5,900	5,800
Custer	13,100	13,400	13,500	13,700	13,900
Daniels	3,100	2,900	3,700	3,600	3,400
Dawson	11,200	11,200	11,200	11,400	11,600
Deer Lodge	13,500	13,300	13,000	12,700	12,400
Fallon	4,100	4,100	4,000	4,000	4,100
Fergus	13,300	13,300	13,300	13,400	13,600
Flathead	48,900	52,500	55,600	58,600	62,100
Gallatin	40,200	43,700	46,300	48,900	51,700
Garfield	1,800	1,800	1,800	1,700	1,600
Glacier	11,200	11,300	11,600	11,900	12,100
Golden Valley	1,000	1,000	900	900	900
Granite	2,700	2,800	2,800	2,800	2,800
Hill	18,200	18,700	19,200	19,800	20,300
Jefferson	7,300	8,000	8,200	9,400	10,200
Judith Basin	2,700	2,600	2,400	2,300	2,200
Lake	18,000	18,500	18,900	19,400	20,000
Lewis & Clark	40,900	44,900	48,800	52,800	57,500
Liberty	2,500	2,400	2,300	2,300	2,200
Lincoln *	17,900	18,100	18,300	18,600	17,500
McCone	2,600	2,600	2,500	2,400	2,300
Madison	5,700	5,800	5,800	5,700	5,700
Meagher	2,300	2,300	2,300	2,300	2,300
Mineral	3,700	3,800	3,900	4,000	4,100
Missoula	69,500	74,100	78,300	83,600	89,000
Musselshell	4,400	4,600	4,600	4,600	4,600
Park	12,800	13,100	13,500	13,800	14,200
Petroleum	700	600	600	500	500
Phillips	5,500	5,300	5,200	5,200	5,100
Pondera	7,100	7,000	6,800	6,700	6,600
Powder River	2,600	2,600	2,600	2,600	2,600
Powell	8,000	8,200	8,300	8,500	8,600
Prairie	1,800	1,800	1,700	1,700	1,600

TABLE 7 CONTINUED

COUNTY	1980	1985	1990	1995	2000
Ravalli	20,500	21,400	22,700	23,800	25,000
Richland	10,400	10,300	10,200	10,100	10,000
Roosevelt	10,700	10,900	11,100	11,300	11,500
Rosebud *	13,500	11,100	11,100	11,200	11,300
Sanders	8,600	8,700	8,900	9,200	9,400
Sheridan	5,400	5,200	5,200	5,100	5,000
Silver Bow	40,900	40,700	40,500	40,500	40,500
Stillwater *	5,500	5,400	6,800	6,500	6,200
Sweet Grass *	3,300	3,200	3,700	3,700	3,600
Teton	6,300	6,300	6,200	6,100	6,100
Toole	5,300	5,400	5,400	5,500	5,500
Treasure	1,200	1,100	1,000	900	800
Valley	13,300	13,100	13,000	12,900	12,900
Wheatland	2,500	2,500	2,500	2,400	2,400
Wibaux	1,500	1,500	1,500	1,400	1,300
Yellowstone	109,700	123,500	136,400	150,000	164,400
TOTAL	788,900	823,200	860,300	897,000	935,700

* Total population includes temporary construction workers and families. Population without this component is as follows: Big Horn - 11,100 (1980), 12,200 (1985), 13,200 (1985); Lincoln - 16,500 (1980); Rosebud - 10,100 (1980); Stillwater - 5,200 (1985); and Sweet Grass - 3,100 (1985).

APPENDIX B

Council of Economic Advisors

STATE OF MONTANA

Office of the Governor

Executive Order No. 19-77

Executive Order establishing an economic development policy and creating a Council of Economic Advisors.

I, THOMAS L. JUDGE, in accordance with the authority vested in me as Governor by the laws and Constitution of the State of Montana, hereby set forth a policy of the executive branch regarding economic development in Montana and establish an advisory council to assist in implementation of that policy.

I.

In recognition of House Joint Resolution No. 55 of the 45th Montana Legislature, "A Joint Resolution of the Senate and the House of Representatives of the State of Montana Recognizing the Value of America's System of Free Enterprise and Encouraging the Vigorous Support of Business by the People, the Public School Systems, and the Government of the Great State of Montana," I hereby declare it to be the policy of the executive branch of the government of the State of Montana:

(1) to create a climate in which private enterprise in Montana can flourish;

(2) to preserve, protect, and foster the creation, development, and balanced growth of private enterprise in Montana;

(3) To recognize that private enterprise and entrepreneurship is essential to the preservation of the individual liberty and freedom of Montana's citizens; and

(4) To recognize that a healthy and prosperous business community with the benefits Montana's citizens derive thereby in terms of employment opportunities and in goods and services provided is essential to the well being of Montana's citizens.

I therefore direct all the parties of the executive branch of the State government of Montana, under the leadership and direction of the Office of Commerce and Small Business Development, to:

(1) engage in a vigorous program for the development of new business opportunities and in the expansion of existing businesses, broadening the economic base in Montana and creating new job opportunities for Montanans and improving the quality of life in this State, while preserving and protecting the inalienable individual right to a clean and healthful environment; and

(2) insure that the full resources of the executive branch of the government of the State of Montana are utilized to the maximum possible extent in the furtherance of these policies.

II.

To assist in the formulation and attainment of the policies stated above, and pursuant to section 82A-110, R.C.M. 1947, I hereby create an advisory council to be known as the Governor's Council of Economic Advisors. The Council is composed of the following members:

*Ross W. Cannon, Esq.
Cannon and Gillespie
1721 Eleventh Avenue
Helena, Montana 59601

Dr. Richard J. McConnen
Department of Agriculture
Montana State University
Bozeman, Montana 59715

Phil Tawney
Environmental Information Center
197 West Lawrence
Helena, Montana 59601

Joyce E. Zacek
515 Morrow
Bozeman, Montana 59715

Duane L. Reber, President
Montana Mining Association
2924 Salish Court
Missoula, Montana 59801

Vince Bosh, Presicent
Montana AFL-CIO
2737 Airport Road
Helena, Montana 59601

Rick Graetz, Publisher
Montana Magazine
Box 5630
Helena, Montana 59601

Harvey Bryan
329 Johnson Street
Wolf Point, Montana 59201

Gay Holliday, President
W.I.F.E.
Box 316
Roundup, Montana 59072

Gene Todd
1719 First Avenue South
Great Falls, Montana 59401

John H. Harnish, President
Tractor and Equipment Company
Box 30158
Billings, Montana 59101

Ron Harmon
1209 Ninth Avenue
Havre, Montana 59501

Mark Schoknecht
Box 646
Libby, Montana 59923

Dr. Lloyd C. Rixe, Pres.
TAP Inc. Economic Consultants
315 Haggerty Lane
Bozeman, Montana 59715

*Mr. Cannon shall serve as Chairman.

The Council shall serve at the pleasure of the Governor. The Council shall remain in existence until June 30, 1979, at which time its existence shall cease until further extended by executive order of the Governor. The Council shall meet not less than six times each year on such dates and at such places as the Governor or the Chairman may specify.

The Council shall annually review the condition of Montana's economy and make recommendations to the Governor on the best use of the resources of the executive branch of the State of Montana to obtain the policies declared in this executive order. It will be the function of the Governor to execute and implement, through the appropriate agencies, such of the Council's findings and recommendations as he considers appropriate and in furtherance of these policies.

The Council may:

(1) conduct studies and draw upon the resources of the Governor's Office, the Office of Commerce and Small Business Development, the departments of the executive branch, the Montana University System, the private institutions of higher education, and the talents of the private economic sector

of Montana including business, labor, agriculture, and all other groups and individuals in Montana willing and able to assist the Council in conducting the studies; and

(2) conduct hearings, workshops, seminars and meetings throughout the State to exchange information and views with respect to the most appropriate means of attaining the policies declared above.

The Council shall annually transmit to the Governor an economic report setting forth:

(1) the condition of Montana's economy;

(2) a review of the Council's activities for the year;

(3) a summary of its recommendations to the Governor with respect to the policies declared in this executive order;

(4) a summary of the Council's recommendations, if any, for legislation to be proposed by the executive branch to implement the policies declared in this executive order; and

(5) such other matters as the Council considers germane to its functions.

GIVEN under my hand and the GREAT SEAL of the State of Montana this thirteenth day of October, in the year of our Lord, One Thousand Nine Hundred Seventy-seven.

Thomas L. Judge

THOMAS L. JUDGE, Governor

ATTEST

Frank Murray

FRANK MURRAY, Secretary of State

Minutes
Council of Economic Advisors Meeting
October 31-November 1, 1977
Helena, Montana

Governor Judge opened the first meeting of the Council of Economic Advisors, Monday, October 31, 1977, at 9:00 a.m., in the Governor's Reception room, thanking all members for their acceptance as Council members. He said out of the 140 nominations received for membership on the Council, he chose the fourteen who would, he thought, work most effectively together. The Governor explained the policies of the executive branch of government in the State of Montana with regard to the economy, and charged the Council with annually reviewing the condition of Montana's economy and making recommendations to him on the best uses of the resources of the executive branch of the State of Montana. Members of the Council present were Chairman Ross Cannon, Vince Bosh, Harvey Bryan, Rick Graetz, John Harnish, Gay Holliday, Dick McConnen, Duane Reber, Lloyd Rixe, Mark Schoknecht, Phil Tawney, Joyce Zacek, and Ron Harmon.

Governor Judge then introduced Jim Flynn, Director of the Office of Commerce and Small Business Development, who explained the legislation and the funding for the creation of the Office of Commerce and Small Business Development and the Council of Economic Advisors: $120,000 is from EDA 302 planning program funds; $40,000 is from Old West Regional Commission federal funds; and $61,300 is from the state General Fund. He also explained projects which are currently being undertaken in the Office of Commerce and Small Business Development. The major point made by Jim Flynn was that the purpose of the office was to work with the small business community in Montana. The office has been responding to all questions, letters and calls; the staff has been working directly with Montana communities who want to stimulate economic growth in their areas; and they are in the process of compiling county economic data profiles and developing a seminars to be held throughout the state to begin in February. Jim Flynn stressed that the Office would provide staff support for the Council.

A question was raised about the relationship between the Office and the Council of Economic Advisors. Jim Flynn pointed out that there is no organizational chart that shows a direct relationship between the Office and the Council. The Office of Commerce and Small Business Development is directly under the Governor's office and responds to the Governor's directives and policies; the Council advises the Governor on economic policy in the state and will be required to review all EDA 304 loan applications.

Lieutenant Governor Ted Schwinden addressed the Council briefly on the subject of Montana's energy situation and energy policy. He explained that four directives were given to his office by the Governor: 1) to develop a state program for energy conservation; 2) to develop a state program for energy allocation in case of shortage of energy supplies; 3) encourage maximum use of alternative energy sources; and 4) develop a comprehensive energy and growth policy for Montana. He said the question is how does one set rates of growth, if it's even possible

at the state level, and who is to do it? The Lieutenant Governor concluded his speech by inviting the Council members to join in a dialogue with him on their ideas and questions.

The question was asked whether the Lieutenant Governor's office was developing guidelines for energy growth. Ted replied that the main problem in doing this was getting public input, other than with the public forums and the Montana Futures survey, which the Governor has held. He said that it is important for us to look at the siting criteria in the state, and draw up a scale of "desirable" and "undesirable" for areas for development -- siting criteria has to involve the people to see what they want for their portion of Montana. From the responses received, Ted said that the people in Montana want the "best of both worlds -- jobs and a quality environment.

The Governor added that we must look at all the possibilities for economic development in Montana; this deals not only with the economy, but with inflation, costs, etc., -- the trade-offs are difficult and the people have to think about what they are willing to sacrifice for growth in Montana and what kinds of growth they will accept.

In response to a question about deregulation, the Governor said he would be interested in a study done on this if the oil and gas industry is required to deregulate -- what would it mean for Montana? The Governor said three things have to happen: 1) demand has to come down--conservation is an important part of the solution to any energy problem; 2) we have to develop our fossil fuels; and 3) this country has to move away from fossil fuels to alternative energy sources.

A long discussion followed concerning the problem of communication between this Council of Economic Advisors and the communities in Montana. It was mentioned that those citizens who are concerned with the economy of Montana represent only about 20 per cent of the population, and the Council will have to develop a process so that it can build a communication link with these people. It will be important for the Council to encourage people to get involved with this 20 per cent, and we should avail ourselves of the wisdom of organizations such as the Cattlemen's Association.

The meeting was adjourned until 1:30 p.m. for a lunch recess.

The meeting of the Council of Economic Advisors reconvened at 1:30 p.m. Maxine Johnson, Director of the Bureau of Business and Economic Research at the University of Montana delivered a presentation titled, "Montana's Economy, Past, Present and Future." Maxine explained that her organization is a state-funded economic research organization. She explained that they would be happy to work with the Council at the members' request.

Maxine said that during the 60's, the proportion of Montana's population in the labor force was smaller than in the U.S.--partly because there were fewer working women here and partly because so many people of working age left the state. A smaller proportion of our population was employed, and an increasingly large percentage of our

workers were employed in industries where annual earnings per worker are low. So in terms of economic well-being as measured by per capita incomes, Montana wasn't doing well when the 70's began.

Mrs. Johnson said one problem that economists have in analyzing and projecting employment and income is because of insufficient information. Since there won't be another Census of Population until 1980, some of the numbers they have are shakey and nearly all of them are subject to revision. In the 70's, Montana's population growth grew at a higher rate than the national estimate. Coupled with this fact was that most of the increase in population occurred among people in the working-age groups, which meant that the Montana economy has had to provide a large number of new jobs since 1970. Montana has done very well: according to Employment Security Division estimates, almost 312,000 Montanans were employed in 1976--about 49,0000 more than in 1970. But in spite of the number of new jobs, employment has not been able to keep pace with the growth in the labor force and many people have been unable to find work.

She also explained that tourism has not been discussed because it is not classified as an industry in the Standard Industrial Code. Many business provide goods and services for travelers, but we don't know what proportion of their activity is created by tourism. Information is badly needed about this industry, so it can be compared to other industries in our state.

Mrs. Johnson concluded saying that the growth we need is going to have to occur in our resources-based industries. It is particularly difficult to talk about growth in the resource-based industries because we then run into discussion about trade-offs, etc.

Next speaker on the agenda was John Anderson, whose topic of speech was "Potential for Montana's Influencing their Economic Future."

He said that everyone wants to believe that there is something we can do about our future, but there is a problem with the free-market process vs. legislative government restrictions. Our potential exists right now in Montana for somewhat different reasons than it has in most states. If a blunt profile was taken of Montana, we would see an unusual profile: we have a dispersed, sparse population, and we have a "lot of everything that people elsewhere are going to want."

But our potential is "time-perishable". Montana doesn't have the luxury of time. To a substantial degree, the outside stockholders are preoccupied with questions other than Montana, and until there is a national energy or an economic policy, not much outside attention will be given to Montana by those who own or wish to acquire Montana resources.

Mr. Anderson said this Council has to have prefixed goals: process, and an information data bank (which is like an intelligence system). We have to learn more about those forces with which we can influence Montana's economic future. We have to see what the others are doing; how they operate. We need to build "coalitions of power" between other states in our regions, and Mr. Anderson believed coalitions can be

established on an international basis as well. Mr. Anderson concluded by saying that Governor Judge has shown policy motivation by calling together such a well-qualified group as this, and with the motivation from the Office of Commerce and Small Business Development working with this Council, we do have the potential of influencing Montana's economic future.

Minutes
Council of Economic Advisors Meeting
(continued)

Continuation of the first meeting of the Council of Economic Advisors was opened on Tuesday, November 1, in the Governor's Reception Room.

Chairman Ross Cannon said a discussion should be held so we can obtain a consensus of what we want to do over the interim; we might take a look at what might be the long-range goals of economic policy in Montana as it relates to the state's involvement in it. What kinds of activities might be appropriate within the framework of these goals? What recommendations we might make to the state or Executive branch? Ross asked the Council to prepare their views in writing on questions such as these and send them to him before the next meeting.

Dick McConnen offered a specific proposal, which contained four goals: 1) establish growth and employment rates with regard to basic industries (a reference of study might be "Montana Employment and Labor Force"); 2) the pay level is expected to be above average; 3) concern with economic policy in the state, which would increase the diversity of employment opportunities in the state. Money isn't everything, and a person's choice of employment has value; and 4) to recognize that we have to be concerned with a policy which might be successful economically, but it might be harmful environmentally--again, to consider the trade-offs.

Dick suggested we take a combination of labor, market and values and establish some goals for manufacturing in certain parts of the state. He said there will probably be task forces involved; Vince Bosh agreed to this it was a realistic approach and a basic way to start.

Duane Reber suggested we look at forest products, mining, agriculture, and tourism -- to see what we can do for them because they are already established within the state and perhaps it's possible to expand them.

Joyce Zacek agreed with Dick McConnen's suggestion and felt that we not only have an unemployment problem, but an underemployment problem and we should expand diversity of employment especially for women and minorities.

Rick Graetz said he was worried about the time-frame and said we have two problems: What kind of attraction does this state have for big industries and what do the people want? He suggested that this Council look to see what kinds of problems businesses in Montana face, such as regulations, etc. He said we should talk to the people in our communities and to bankers and ask them if there are people they know who have approached them for financing of a small business. Rick said he was worried that the Council will spend too much time on academic goals. He recommended that we check on the local level and find out what the state is doing to hinder business.

Gene Todd added that the only way we can attract people to Montana is to offer them an income and area where they will be financially successful.

Chairman Cannon asked Maxine Johnson and Mike and Jim from the Office of Commerce for their views on Dick McConnen's proposal. Maxine felt it was a very reasonable proposal, and something that could be carried out. She agreed that we should look at the business regulations in the state. Jim said their office is embarking on a program of looking at business regulations through the Business School at the U of M and mentioned that the Council and his Office should not both be working on this problem. With regard to making broad-based recommendations, Jim said their office was not able to do that.

Phil Tawney agreed with Dick McConnen's proposal and added that he would like to see some effort made to involve more people in the economic development questions.

Chairman Cannon asked Jim Flynn to explain the 304 Loan Program. Jim explained that it consists of $267,000 per year, which isn't a lot of money, but it is enough money to conduct an experiment with. $200,000 of the grant is an EDA 304 grant fund made available to the Governor. Jim said the state of California has a similar loan program using their EDA 304 funds and we are attempting to apply the experience of their program in setting up our business loan program. Jim said that we do have to lend this $267,000 according to EDA guidelines. In order to qualify for the EDA Business Loan Program, a business has to be turned down by two commercial lending houses. If they have access to traditional sources of funding, we would be encouraged to make use of it--we are not allowed to compete with commercial lending houses. Jim said the original intent of this money was to fill a gap in the financial structure we have today, that being a quick-delivery system. Legislative stipulations in the enabling legislation requires that all applications be reviewed by the Council of Economic Advisors.

Dick McConnen suggested two proposals: 1) that we vote to establish an interim loan committee, or 2) instruct the chairman that if there should be need, he could establish an interim loan committee and report back at the next meeting.

Jim Flynn said there wasn't an urgent need for composition of an interim committee if it was for the purpose of reviewing loan applications but if it was for the purpose of input into the loan program decision, an interim committee should be established.

DICK MCCONNEN MOVED THAT WE ESTABLISH AN EXECUTIVE COMMITTEE OF THE GOVERNOR'S COUNCIL OF ECONOMIC ADVISORS. JOYCE ZACEK SECONDED.

Phil Tawney felt this executive committee should be flexible enough so that other Council members could participate if something of interest was being discussed. Lloyd Rixe agreed that we needed some kind of committee so we can focus on the hard issues.

COUNCIL OF ECONOMIC ADVISORS MEETING
GOVERNOR'S RECEPTION ROOM
HELENA, MONTANA
WEDNESDAY, JANUARY 4, 1978

The meeting was called to order by Chairman Ross Cannon at 9:00 a.m. Chairman Cannon introduced Phil Brooks from the Research Division of the Department of Community Affairs who gave the Council an economic overview of the states in the Old West Regional Commission. Mr. Brooks explained that OWRC deals with the economic problems in five states in the form of project grants. Program areas of the OWRC include human resources; energy research and development; natural resources, excluding energy; agriculture and forestry; recreation and tourism; transportation; public investment plans; government services; and arts and crafts. Mr. Brooks said the OWRC budget has ranged from $5 to $10 million per year. He also handed out to each Council member a copy of the "Regional Economic Plan" written in 1976 by OWRC, which explained the purpose of the regional plan, questions it addresses, goals, approaches, costs, etc.

Next on the agenda was Newell Anderson, Montana State Coordinator for OWRC, who gave a short history and current update on OWRC activities in Montana. His work includes managing and coordinating state grants in Montana. He explained that each state has an equal amount of money for grants. Montana receives three basic kinds of grants from OWRC: community technical assistance, energy planning assistance, and public investment plan.

A representative from the Economic Development Association of Eastern Montana (EDAM) gave a short synopsis of his group's activities. EDAM is an 18-county incorporated organization which deals with economic problems in eastern Montana, some of which are: water rights -- agriculture vs. industry --what will the federal government's role be?; increased grazing fees; the CMR Wildlife Refuge -- who has jurisdiction?; the need for new and alternative crops and different markets; requirement for all meat to come under the import quota; rodent and pest control; and saline seep. He explained that EDAM has no funds and is working on a proposal to the OWRC that will appeal to the program area of increased citizen participation.

The meeting was reconvened after a lunch break. At that time, Lloyd Rixe handed out a second draft of a proposal from the EDA Section 304 task force. Lloyd said that if the Council approved this draft today, the Council would be ready to take action on the loan program. He explained that their proposal was put together according to EDA guidelines and regulations, but it was task force's judgement to limit the loans to participation loans in existing institutions so that we can take advantage of their loaning capacity. Lloyd said the proposed draft will be the document that will be sent to banks.

Dick McConnen suggested an amendment to this form to include a question regarding the estimated number of jobs created. The Council [illegible] ability of the loan program would be provided; a [illegible] report that information about this program would be mailed to all banks in the state.

LLOYD RIXE MOVED FOR [illegible] THE SECOND DRAFT OF THE EDA SECTION 304 LOAN PROGRAM, AS AMENDED. [illegible] SECONDED THE MOTION.

Harvey Bryan said he would feel more comfortable if we specified the function of this Committee to facilitate the agenda for the Council and to work with the staff in facilitating the process of this Council.

Gene Todd said he didn't like seeing three to four people saddled with all the work of the Committee; but would rather see three or four committees wherein everyone could work and learn something.

Chairman Cannon said he he would like to see something come back at the next meeting about Dick's growth-employment proposal and asked Dick to prepare a written proposal.

At this point, the Governor entered the room and handed out a letter to each Council member charging the Council with his proposals for accomplishment.

Chairman Cannon appointed members to each task force: Task Force on Goals: Joyce Zacek, Vince Bosh, Phil Tawney, and Rick Graetz. Task Force on the Loan Program, which would work with the Office of Commerce and come back and advise us at the next meeting as to what our appropriate role in that function is: Lloyd Rixe, Gene Todd, Mark Schoknecht, Duane Reber, and Harvey Bryan.

Chairman Cannon said the Task Force on Goals might utilize Maxine Johnson and the Bureau of Business and Economic Research to help them.

Discussion of the next meeting date concluded the first meeting of the Council of Economic Advisors. There will be a dinner meeting at 7:00 p.m., Tuesday, January 3, and morning meeting January 4. Suggested agendas will be mailed out prior to the meetings.

Dick McConnen gave a short summary and handed out a report on the meeting of the labor and employment task force. Dick said he would like the task force to come to the next Council meeting with some specific goals in mind about how they view Montana's total employment picture. Phil Tawney said he would like to try and answer questions such as what we are doing and what we should be doing. Dick agreed that we should try and keep our goals simplistic and added that he would like to see increased choices of employment for the people of Montana.

Harvey Bryan suggested that we set some goals for ourselves such as the ones OWRC has for itself. Chairman Cannon agreed that this was an admirable suggestion, but felt we should wait until we have had a few more meetings and then determine what we want to set as goals.

Chairman Cannon advised the Council that pursuant to the executive order creating the Council, it is to publish a report on the condition of Montana's economy. He said the Council's function, a advisory as to economic development and policy. Mike Fitzgerald said our function as a Council is to present to the Governor specific recommendations as to what state government should be doing with regard to Montana's economy.

Tom Dundas from the Research Division of the Department of Community Affairs was next on the agenda. He gave the Council a review of what research capabilities are available and also gave a general overview of the economic picture in Montana.

Discussion returned to the question of the function of the Council. Harvey Bryan suggested giving Mr. Dundas our recommendations on goals and policies regarding Montana's economy and give them a deadline of October or November to come up with a final report.

Jim Flynn told the Council it is limited as to what it can do because money isn't available -- the Legislature did not appropriate us any. This lack of resources and the commitments already made do not allow very much flexibility to the Council.

Chairman Cannon appointed a temporary task force to deal with this question of the Council's function, both short-term and long-term. Those appointed were Ron Harmon, Joyce Zacek, Lloyd Rixe, and Gaye Holliday.

The meeting was adjourned.

COUNCIL OF ECONOMIC ADVISORS
Colonial Hilton Inn
March 15, 1978

The meeting was called to order by Chairman Ross Cannon at 9:00 a.m. The next meeting date for the Council was scheduled for April 20-21. Room 413 Capitol Bldg

Chairman Cannon said that from last night's meeting, it was decided that the subcommittee approach was the most substantive way for the Council to take in assisting in the formulation and attainment of the policies in the executive order. The Council's mandate is the development of economic policy and rendering advice to the Governor. The components of Montana's economy which were discussed last night were: forestry, agriculture, business, industry, energy, tourism, transportation, state government, mining, and federal government. Chairman Cannon said the Council needs to decide what order and context it wants to consider these components, and assign them to a task force for study.

Chairman Cannon introduced Governor Judge, who was present for the meeting. Governor Judge said he was extremely pleased by the progress and interest Council members have shown. He said there is great emphasis now at the federal level for a comprehensive balanced growth plan, and that we are working on a comprehensive program for state government that will cover all aspects of Montana's economy. The Governor said this program is comparable to the Policy Initiatives he proposed in 1975. He said there will be a national urban policy which will provide the states with a major role, and states will be able to coordinate strategies for their own states. The Governor said he felt the private sector, as well as state government, should have a major role.

After the Governor's remarks, Chairman Cannon returned discussion of the Council back to the components of Montana's economy.

Forestry. Mark Schoknecht and Phil Tawney gave an overview of this industry. Schoknecht said that 14 billion feet a year are lost to natural causes, and one of the major causes is transportation.

Schoknecht said one other point to be made about this industry is proper utilization of the forests, but there has been more pronounced effort in utilization during the last few years. He said salvage programs are an ideal setup for small operations because they offer good development opportunities. Capital is no problem because large equipment companies often pick up most of the expense.

Vince Bosh said he was interested in going to Libby and viewing the problems presented firsthand. Chairman Cannon proposed that the task force write up a preliminary report, then a trip, such as one to Libby, could be planned.

Gay Holliday interjected here that she didn't feel it was necessary for us to assign a task force for each field because every person on the Council represents a certain interest and is qualified to write a report and state the problems.

Mining. Duane Reber said that the highest paid industry in the State of Montana is mining. They have more capital money available to them to

develop new projects, but the problem they have is that they don't know what the laws are because they change everyday. Montana has 24 small mining operators who have from a quarter to a million dollar investment in their operation, so it is important for them to be kept abreast of legal activities affecting their business. Another problem, Reber said, is with the amount of inspections at both the state and federal level which are duplicative of each other. He said that Montana also has the only chrome deposit in the United States, but it is not being mined except what are in wilderness areas. Reber said the general consensus is that mining is the biggest taxpayer in the state, and that there are dozens of things that can be done to help the mining industry in Montana.

LUNCH BREAK

Tourism. Rick Graetz said that the one particular area of concern of tourism is in the area of promoting in-state travel of Montanans in their own state and providing employment for seasonal workers. Everyone on the Council agreed this was an excellent idea.

Business: John Harnish said that taxes on businesses are the biggest problem today. Another problem is training people to fill the jobs that are available, and perhaps there should be emphasis on training programs. The Council felt that another topic that should be put under business is land use/development and transportation, as far as acquiring land for industrial use.

Agriculture. Gay Holliday said that two-thirds of production in the United States has to be exported, and there is a need for looking into alternative uses for our crops, such as gasohol. She said there is also a need for meat processing plants in Montana.

There was discussion among the Council; Harvey Bryan felt that the topics of taxes and water are subjects in themselves. Rick Graetz added that he felt state government should create something like internships so it can draw upon the manpower that is available in the state instead of going outside the state to find what we need.

Chairman Cannon asked that Council members do an outline on the recommended areas (taxes, management, land-use problems and transportation) just discussed so we can take a better approach on it at the next meeting.

Phil Tawney, Rick Graetz, Vince Bosh, and Dick McConnen gave a report on Employment Goals, which they said took into consideration Montana's lifestyle. Bosh said it gives us a framework with which to work with on the subjects covered today . The Council made minor word additions and subtractions to the report. Chairman Cannon asked whether we now have a good enough grasp on major economic and employment goals for the state with the report the task force just presented. John Lopach from the Governor's Office of Commerce and Small Business Development suggested the addition of strengthening the climate for small business in Montana.

After discussion of the title of the report, HARVEY BRYAN MOVED THAT THE TITLE BE CHANGED TO READ "COUNCIL OF ECONOMIC ADVISORS RECOMMENDED ECONOMIC GOALS." GRAETZ SECONDED.

The meeting was concluded with reports from Jim Flynn and Tom Kiely from the Office of Commerce and Small Business Development. Flynn gave an update on the EDA 304 program, which has had six firms inquire about the program. There is presently $100,000 not being considered for usage, and overall statistics prove that that money could be used as a leverage for creating 200 jobs in Montana.

Tom Kiely gave an update on the community technical assistance program and of the different town meetings he has attended.

Newell Anderson, Old West Regional Commission representative, gave a report on OWRC activities in the region. Montana receives a two-year grant of $300,000 which covers the period from July 1977 to June 1979. Anderson explained the various grants available to the counties and added that he feels these grants fill a critical gap in the funding ability of communities.

Minutes
Council of Economic Advisors Meeting
May 2-3, 1978
Helena, Montana

The meeting was called to order by Chairman Ross Cannon at 9:00 a.m. While numerous topics were brought up, discussion centered on task force reports on the working papers concerning Montana's economic sectors.

Working papers presented during the meeting focused on Forest Products, Agriculture, Tourism, Business Development, and Mining. All papers were referred back to the task forces for further development and for discussion at the next meeting of the Council.

On the morning of May 2, a number of loan proposals was discussed. A motion was made and seconded to approve an application submitted by Grizzly Manufacturing/World Housing Corporation. Grizzly Manufacturing has requested this $25,000 loan as an integral part of their total financial package of $141,356 which is necessary to produce one prototype, transpandable housing unit. This prototype will then be used to infiltrate Middle East and Far East markets.

Various motions were made concerning the Montana Livestock Cooperative including one by Gay Holliday. Gay's motion suggested that the Agriculture Task Force together with Gene Todd "be authorized to confer with the appropriate representatives of M.L.C.; then, if appropriate, recommend to the Council for adoption a course of action consistent with the development of the M.L.C."

Subsequent phone conversations between Gene Todd and Lavon Sumption identified the major problem facing M.L.C....Stock sales by D. A. Davidson have been progressing at a restricted pace. In reality only 10% of the necessary $5,000,000 worth of stock has been sold. An additional 10% has been pledged but at the present time is uncollected.

To remedy this situation a plan has been devised whereby representatives will confront ranchers on a face-to-face basis. $120,000 is needed to fund this marketing effort for one year's duration. Mr. Sumption has been referred to the Office of Commerce and Small Business Development to investigate the possible use of the 304 loan program.

While discussing the topic of tax revision a suggestion was made that the CEA advise the Legislature in that area when appropriate. At one point a discussion was led by Duane Reber regarding Montana's mineral taxes. It was Duane's opinion that current tax levels are "slowly driving the mining industry from the state." No motions or recommendations evolved from the discussion.

At the conclusion of the meeting a future date was set in July for a meeting to be held in the Libby area. An evening cocktail and dinner meeting will be held at 6:00 p.m. July 6th, with the remainder of the agenda devoted to discussion of task force working papers, tours of lumber product facilities, and discussions of problems and potential in the forest product sector.

MINUTES
COUNCIL OF ECONOMIC ADVISORS MEETING
July 6, 7, 8, 1978
Libby, Montana

On July 6, 1978, between the hours of 1:00 and 5:00 p.m., an informal tour through the St. Regis Lumber plant was conducted, following appropriate introductions and presentations of representatives of the forest industry and St. Regis Lumber Company participating in the tour.

On the morning of July 8, the Council and all representatives of the forest industry proceeded on a field trip through the St. Regis forest lands. The field trip was conducted by Mr. Russ Hudson of St. Regis.

Following the conclusion of the field trip, presentations pertinent to RARE II were submitted by those individuals who had participated in the field trip.

A formal meeting of the Governor's Council of Economic Advisors was held at the Venture Inn in Libby, Montana, on July 8, 1978, commencing at 8:30 a.m. Mr. Ross Cannon presided as chairman of the meeting.

Discussions were held pertinent to the previous day's tour and field trip, after which various thoughts and recommendations were submitted by the Council to the forest industry task force for future study. Upon motion, duly seconded and passed, the Council was authorized to consult with and obtain the expert advice of qualified specialists in the area of forestry prior to making specific recommendations to the Governor.

A lengthy discussion was held involving road construction, its costs, and its potential economic impact on forest industry.

After discussion pertinent to the EDA 304 loan program, it was moved and seconded that decisions with regard to the application of both the Montana Livestock Cooperative and Energy Solutions, Inc., for loans would be withheld pending further information and data from the Office of Commerce & Small Business Development. However, upon motion duly made, seconded, and unanimously passed, a loan in the amount of $25,000 to World Housing Corporation was approved.

Upon motion by Duane Reber, which motion was seconded and carried, the next Council meeting will be held on October 18, 19, 20, 1978, in the Eastern part of the state for purposes of studying the coal fields of Montana.

By a further motion which was also seconded and unanimously passed, a meeting of the Council has been scheduled in Helena on November 8, 9, 10, 1978, for purposes of finalizing all paper work of the first year's accomplishments of the Council.

The Meeting adjourned at 11:00 a.m., following motion which was seconded and carried.

* * * * * * * * * * * * * * * * * *

Note:

On Monday, July 11, 1978, Mr. Duane Reber and Mr. John Lopach polled the members of the Council concerning a loan of $75,000 to Energy Solutions, Inc. Voting in favor of the loan were Ross Cannon, Phil Tawney, Duane Reber, Rick Graetz, Gay Holliday, John Harnish, Mark Schoknecht, and Gene Todd. The following members were unavailable or were not called because of their lack of familiarity with the project: Richard McConnen (unavailable), Lloyd Rixe (unavailable), Vince Bosh (unavailable), Harvey Bryan (unavailable), and Ron Harmon (not called).

APPENDIX C

Governor's Public Forums on the Economy

Montana Forums On The Economy

The forums have provided citizen involvement in economic planning for the State of Montana. Public input through the economic public forums supplements information gathered through traditional channels. The 302 economic planning process ties together in a rational, comprehensive plan various elements of economic planning, which were previously uncoordinated. The Montana Futures process, the six-year planning process, the Governor's policy initiatives, multi-county district development, and energy and environmental planning should all be integrated in a proper economic planning process. Securing informed citizen input through economic public forums provides public involvement which makes economic planning a legitimate extension of the feelings of the people.

Increased public awareness of the need for economic policy development is a major benefit of the economic public forums. This increased awareness leads to increased citizen involvement in determining Montana's future direction. The Governor believes that Montanas must be able to determine, for themselves, the direction of our future growth. Without this self determination, decisions on the future of Montana will be made by huge, out-of-state corporations whose only goal is to exploit Montana's rich natural resources, water and agricultural potential.

The quality of economy we have will directly affect the kind of future Montanans will be able to build for themselves and their children. The objective of the economic public forums

is to explore alternative views of Montanans to aid in reaching a common ground for the decisions that will affect our future.

Since May 1st, 1977, the Governor has conducted 22 economic public forums (12 traditional, 6 neighborhood forums in the majo cities, and 4 TV forums.) Three more traditional forums are scheduled for late September. The Governor has directly met with 1,475 Montanans during the 1977 forums, over 5,000 Montanans in visitations and activities associated with these forums (service club meetings, public officials meetings,etc.) and reached approximately 170,000 Montanans through televised forums on Montana's economy.

The Governor has once again found the citizen input valuable and hopes to continue the forums at approximately the current pace. Some format changes might include the following:

1.) Have two forums per day in some smaller counties

2.) Visitations to EDA or SBA grantees or applicants

3.) More economic development-oriented sessions with local government officials

4.) Governor working a short shift (on the job) in an economically important business in a given locality

5.) Local interview panel as well as the usual telephone "call-ins" on selected TV forums

6.) TV call-in questions delayed slightly to all the audience while the Governor will answer the phone himself on the air.

GOVERNOR'S PUBLIC FORUMS ON MONTANA'S ECONOMY

I. Traditional Forums

A. Overall schedule. All counties should have one forum (generally held in the county seat) except the following, which may have more than one forum in locations indicated.

1. Flathead (Kalispell, Whitefish, Columbia Falls)
2. Yellowstone (Billings*, Laurel)
3. Gallatin (Bozeman, Belgrade-Manhatten Area)
4. Ravalli (Hamilton, Victor-Stevensville Area)
5. Rosebud (Forsyth , Colstrip)
6. Glacier (Cut Bank, Browning)

* These cities will probably not have traditional forums, but should have neighborhood forums.

B. Traditional forums conducted May 17-September 30, 1977

1. Lewistown
2. Livingston
3. Glasgow
4. Havre
5. Cut Bank
6. Fort Benton
7. Libby
8. Hamilton
9. Dillon
10. Kalispell
11. Bozeman
12. Deer Lodge
13. Chinook
14. Miles City

C. Pre-forum Publicity

1. Radio and T.V. announcements when possible
2. Posters
3. Newspapapers (regular and specialized)
4. Flyers (where applicable)
5. Letters to following groups;

   a. Service Clubs (men's and women's)
   b. Fraternal Organizations and Auxiliaries
   c. Unions
   d. League of Women Voters
   e. Chambers of Commerce
   f. Agricultural organizations
   g. Economic Development groups
   h. State agencies and department directors
   i. Local officials and State Representatives

D. Post-forum publicity

1. Follow-up articles or letters to editor to local papers from Governor
2. Voice cuts
3. Possible live-taped questions and answers from forum for radio use

E. Forum format. The format will be flexible, depending upon the needs in each specific community. Any and/or all of the following may be done, depending on the local needs:

1. Service club luncheon, hopefully with all the service clubs in the area
2. Economic development meeting with local officials (city councils, county commissioners, economic development councils, etc.)
3. Visitations
   a. Major economic enterprizes in the area
   b. E.D.A. and S.B.A. grantees or applicants
   c. Any potential economic development cites
   d. Possible short shift of work at an economically important job site in a locality
4. Forum
   a. Two hours long
   b. Either 1:30 p.m. or 7:30 p.m., depending on the community

II. Television Forums

A. Format
1. IN-WATS phone calls to operators
2. Moderator from T.V. station
3. Questions screened by News Director and Governor's staff
4. Unanswered questions handled by mail by Governor's office
5. Governor opens with remarks on economic developmen potentials and then handles question
6. Panel consists of Governor, Lt. Governor, Judy Carlson, Special Assistant to the Governor

B. Schedule
1. T.V. forums already completed
   a. KTVQ-Billings
   b. KGVO-Missoula
   c. KRTV-Great Falls
   d. KXLF-Butte
2. T.V. Forums to be completed
   a. KTCM-Helena
   b. KFBB-Great Falls
   c. KULR-Billings

d. KYUS-Miles City
e. KXGN-Glendive
f. KCFW-Kalispell

3. On (d), (e), and (f) above, we may want to use a local panel of economic development-oriented questioners in addition to the call-in questions, due to the small market area covered

C. Publicity
1. Promos by T.V. station
2. Newspaper and radio releases

III. Neighborhood Forums

A. Forums already conducted
1. Butte - 2
2. Helena - 1
3. Missoula - 1
4. Great Falls - 2
5. Billings - 1

B. Forums To Be Scheduled
1. Butte - 1
2. Helena - 1
3. Missoula - 3
4. Great Falls - 3
5. Billings - 4

C. Publicity
1. Radio- news stories and promos
2. T.V.- news stories and promos
3. Newspapers- news stories
4. Posters in Neighborhood
5. Flyers door to door in Neighborhood

D. Participants- any three or four of the following
1. Governor
2. Natural Resources expert
3. Human Resources expert
4. Labor expert
5. Economic Development expert
6. Agricultural expert

E. Follow same general format and visitations as in I-E.

IV. Radio Forums

A. Consultant will serve in an advisory capacity to whomever coordinates Radio forums

V. Handouts For Various Meetings

A. Policy Initiatives
B. Energy door hangers
C. Questionaires
D. Citizen Advocate cards with toll-free number

VI. [illegible] this proposal

A. [illegible]
1. [illegible]
2. [illegible]
3. [illegible] county forums

VII. Division of [illegible]

TASK OR FINANCIAL [illegible]	CONSULTANT	STATE	DUAL
1. Cost of travel [illegible] participants		x	
2. Cost of [illegible]		x	
3. Arranging [illegible] forum participants			x
4. Cost of [illegible] participating in [illegible]		x	
5. Determine [illegible]			x
6. Determine [illegible] in each city	x		
7. Arrange lodging [illegible] for all forum participants	x		
8. Arrange Secretarial [illegible] (where applicable)	x		
9. Provide part of [illegible] system		x	
10. Write copy for [illegible]			x
11. Prepare general [illegible] where necessary	x		
12. Production costs of publicity		x	
13. Use of audio and video equipment as necessary		x	
14. Arrange for [illegible] for T.V. forums	x		
15. Review questions with station personnel before the [illegible]		x	
16. Copies of all [illegible] questions to the Office of [illegible]	x		
17. Secure [illegible] questions			x
18. Cost of phones for T.V. forums		x	
19. Coordinate forum activity with other government [illegible]			x
20. Integrate [illegible] in economic planning efforts		x	
21. Pay [illegible] for T.V. forums			x
22. Arrange [illegible] for T.V. forums	x		
23. Communications [illegible] Governor's office		x	

TASK OR FINANCIAL RESPONSIBILITY	CONSULTANT	STATE	DUAL
24. Select participants for forums		x	
25. Briefing material		x	
26. Press coverage of forums	x		
27. Cost of printing posters, forms, etc.		x	
28. Cost of all lodging and meals required by consultant when traveling to forums	x		
29. Location and date selection for all forums			x
30. Select and direct all local forum coordinators	x		
31. Advise all local government officials on protocol, etc.	x		
32. Briefing book printing costs		x	
33. Provide state phone and necessary office space for consultant		x	
34. Compilation of Questionnaire data		x	
35. Provide written report to Governor on conclusion of contract	x		

VIII. Budget - For Project Year October 1, 1977 - March 31, 1978

Public Forum Consultant	$ 7,200	
*Part-time clerical assistance	-0-	
Supplies & Materials	$ 200	
**Communications	-0-	
Travel/and related expenses in planning forums	$ 1,100	
	$ 8,500	TOTAL

*To be supplied by state if needed
**To be supplied by Governor's office

Payment Schedule

(Project length: 6 months: October 1, 1977 - March 31, 1978)

October 31	-	$1,416
November 30	-	$1,417
December 31	-	$1,417
January 31	-	$1,417
February 28	-	$1,417
March 31	-	$1,416

Contract may be cancelled by either party upon 30 days written notice.

July 18, 1977

MISSOULA PUBLIC FORUM, JULY 13, 1977
Westside Park by Lowell School
Attendance: approximately 110

There were 21 questions, good atmosphere, chilly night after the sun wenttdown.

Six questionsonn energy invoåved out of state shipment of electricity, increasing hydroelectric generation, the Northern Tier Pippline, and potential for coal to boost Monmana's economy. There were only two questions on education, both having to do with vocational education.

There were two questions on highways - the 3rd and Orgage Street problem and the Reserve Street project.

There were two questions on deinstitutionalization - the need for more funds formental health centers and for social services. Other questions involved getting $85,000 for the senior citizens debt, procedures under the Homestead Act, improvements in Workmans' Compensation, violence vs. women, nap week, and regulation on lake water levels.

Submitted by:

JUDITH H. CARLSON

JC/ja

File: Public Forums '77

+HELENA PUBLIC FORUM - JULY 19, 1977 - 100 IN ATTENDANCE+

Twenty-two questions wereaasked.

Coal related questions (3) - How justifythhe need for value-added policy with a coal-export-only policy.

Employment questions (2) - employment of out-of-staters

Taxes (2) - When get rid of the income tax; how aax the tourist more?

Housiingg(2)

Conservation (2) - refforestration and 55 mph speed limit

Fish and Game (3)

Wilderness - where strike the balance between wilderness and multiple use?

Others (4) - affirmative action plans, care at Warm Springs, attraction of big business, people leaving state.

NOTE: It interested me that there were no questions about public employee benefits or classification system (except for the affirmative action question).

JUDITH H. CARLSON

File: Pub. Forums '77

August 15, 1977

Great Falls - Neighborhood #2, Riverview School - 8/11/77 - 50 in attendance

Questions were on:

1. Energy conservation (6) - get businesses to conserve; look at new public services, e.g., wastewater plant; Cyrus Abbott's plan for national conservation; crash energy program; work with utilities.

2. Social projects (2) - how much can state support; battered wives and abused children.

3. One question each on coal development balanced with reclamation; effectiveness of present subdivision laws; mixed up governance of vocational education; land banking to help young farmers; No. Cheyenne Class 1 air quality rating; balance wilderness with development; potential for coal gasification plants; trade off oil & gas from Canada now with future No. slope gas & oil.

Judith H. Carlson
Special Assistant

JC/do

File:

BUTTE FORUM #2 - August 18, 1977

(a) Would like to get miners and environmentalists together!

(b) Small miners can't handle all the paperwork!

(c) Can't we get all the agencies and miners and environmentalists together to work out problems? ("Governor would be willing to initiate such a meeting.")

What is happening on the Intersate between Boulder and Butte?

Are there any plans to deal with the problem of corporate farming and are there any programs to encourage the small family farm?

What suggestions would you (Kathy M.) have to make our system work better?

The bill allowing for tax incentives for individuals who insulate their home is unnecessarily complicated - does this have to be?

Can individuals still apply for tax relief under the Homestead Relief Act?

What about the proposed reduction in Airline Service in the rural areas?

Do our Senior Citizens have any priority in our local community for receiving preference in such things as Federal Housing programs?

(a) What about encouraging non-proft organizations for the handicapped to set-up businesses and jobs for these people in the agricultural production area.

(b) Why can't heat going up the smoke stacks (like A.C.M.) be used to produce electricity?

Was there a mandate for state employees to attend tonights forum?

Do you feel the Federal Government is encroaching more or less on the powers of the State?

What is the "Consumer Council" tax being used for? How much revenue does this tax generate? (Governor and Rep. Quilici answered both questions.)

August 15, 1977

Great Falls - Neighborhood #2, Riverview School - 8/11/77 - 50 in attendance

Questions were on:

1. Energy conservation (6) - get businesses to conserve; look at new public services, e.g., wastewater plant; Cyrus Abbott's plan for national conservation; crash energy program; work with utilities.

2. Social projects (2) - how much can state support; battered wives and abused children.

3. One question each on coal development balanced with reclamation; effectiveness of present subdivision laws; mixed up governance of vocational education; land banking to help young farmers; No. Cheyenne Class 1 air quality rating; balance wilderness with development; potential for coal gasification plants; trade off oil & gas from Canada now with future No. slope gas & oil.

Judith H. Carlson
Special Assistant

APPENDIX D

RARE II Evaluation

RARE II Evaluation

During the spring and summer of 1978 a Wilderness Committee appointed by Governor Judge evaluated the study areas within Montana under the Forest Service's Roadless Area Review and Evaluation process. Represented on this committee were the Departments of Natural Resources, Fish and Game, Livestock, and State Lands, as well as the Office of Commerce. The Office of Commerce was represented in the study sessions by Bruce Finnie and Dan Horgan.

Following are the final RARE II recommendations submitted by the Governor as a result of the Committee's work.

State of Montana
Office of The Governor
Helena, 59601

THOMAS L. JUDGE
GOVERNOR

September 28, 1978

Mr. Robert Torheim
Regional Forester
U. S. Forest Service
Federal Building
Missoula, Montana 59801

Dear Mr. Torheim:

Attached are my recommendations for the study areas in Montana which have been included in the Roadless Area Review and Evaluation process. These recommendations are submitted in accordance with the procedures specified by the U. S. Forest Service.

Sincerely,

THOMAS L. JUDGE
Governor

Attachment

RARE II Recommendations

State of Montana

In the RARE II process, the state has the responsibility to submit recommendations to the Forest Service, and ultimately the Congress, regarding the designation of study areas within its boundaries. This is a responsibility that my administration approached with the understanding that Montana's recommendation could have a significant effect on the final designation of millions of acres of land in this state.

By considering the comments of the individuals and interest groups with a stake in the RARE II process we have established a foundation that will make it possible for Montana to submit an objective recommendation to the Forest Service on this critical issue ... a recommendation that emphasizes objective analysis rather than political sentiments.

Some states appear ready to take the position that there should be no additional wilderness areas. That approach abdicates the responsibility of the state to make specific recommendations. I believe that the state's recommendations should be as representative as possible of the opinions of the loggers, ranchers, miners, petroleum interests, snowmobilers, wilderness users and other Montanans who will live with the consequences of the RARE II process.

One primary consideration throughout the period of state review was a strong commitment to minimize the category of "further study" -- Montanans want <u>decisions</u> -- <u>not</u> bureaucratic delays.

THE SELECTION PROCESS

The selection of individual areas for wilderness, further planning, and multiple use recommendation was an extremely difficult task. This committee, chaired by the Lieutenant Governor's Office, was composed of the directors and designated staff representatives of five state agencies: The Department of Fish and Game, the Governor's Office of Commerce and Small Business Development, the Department of State Lands, the Department of Natural Resources and Conservation, and the Department of Livestock.

Members of the Committee are experienced and objective professionals, with broad-based backgrounds, fully capable of making difficult and sensitive decisons while still representing their individual departments. All recommendations were scrutinized by the directors of each agency, and then finally reviewed and passed on by the Governor. These recommendations represent a reasonable approach to the wilderness issue, and a careful balancing of environmental and economic concerns.

The actual selection process involved the use of data obtained from the Forest Service, studies available by the various departments of state government, as well as information provided by special interest groups. All areas were individually discussed and debated numerous times. Consideration was given to the wilderness values, wildlife, recreation and economic characteristics of each region as well as public input by area. The state of Montana's economy has been and will continue to be highly dependent on the basic resource industries - agriculture, mining, forest

products and oil and gas. It is our feeling that areas of the national forest that have significant future economic potential should not be permanently withheld from development. It is also our feeling that any development should be subject to the stringent controls necessary to adequately protect the high quality Montana environment. This country needs energy resources and we could experience a shortage of strategic metals and timber. Every attempt was made to recommend for wilderness designation areas that had high wilderness qualities and minimum economic potential. Clearly this was not always possible since many of the recommended areas do have potential economic conflicts. By the same token, many areas recommended for multiple use designation have high wilderness qualities. Backcountry designation was suggested when it was deemed appropriate to provide an intermediate landuse alternative.

Since the Forest Service did not provide the states with appropriate time to make recommendations on the critical issues involved in the RARE II process, it was difficult to develop a detailed and comprehensive data base. Because of these time and information constraints, the state must reserve the right to amend or adjust its recommendations before specific areas are designated by Congress. With that understanding, I am recommending 600,744 acres for wilderness designation as listed in Table 1.

TABLE #1

Recommended Wilderness Areas

Area	Name	Size
B1001	North Big Hole	37,810
C1485	Clearwater-Monture	83,305
D1485	Deep Creek	27,800
F1485	Silver King-Falls Creek	38,300
H1301	Hoodoo	55,000 *
R1485	Renshaw Mountain	27,400
R1549	Madison	43,980
S1BAA	Selway BTR Canyon	12,700
01008	East Pioneer	93,859
01013	Middle Mtn.-Tobacco Roots	34,640
01061	Blodgett Canyon	9,600
01062	North Fork Lost Horse	7,800
01064	Nelson Lake	2,900
01065	Swift Creek	700
01662	Scotchman Peaks	40,000 *
01428	Flint Range	52,220
01500-1506	Mission Additions (7)	3,130
01545	Republic Mountain	700
01801	Rattlesnake	27,800
01806	Welcome Creek Addition	1,100
	TOTAL ACRES	600,744

* These acreages reflect substantial boundary revision to resolve user conflicts and are approximations.

FURTHER PLANNING

One million four hundred thousand acres of National Forest lands in Montana are undergoing wilderness review by mandate of the U.S. Congress. Designation of RARE II lands to the "further planning" category would indefinitely postpone a decision on such areas. For that reason I recommend no RARE II areas be placed in the "further planning" category.

TABLE #2

Congressionally Mandated Wilderness Study Areas

Great Bear	371,160
Elkhorn	76,346
Spanish Peaks	65,000

West Pioneer	151,000
Taylor Hilgard	289,000
Bluejoint	61,000
Sapphire	94,000
Mt. Henry	21,000
Ten Lakes	34,000
Middle Fork Judith	81,000
Big Snowies	91,000
Hyalite	151,000
TOTAL ACRES	1,485,506

RELEASE TO MULTIPLE USE

Of the 3,985,874 acres that were reviewed under the RARE II process I recommend that 3,385,130 acres be released from the RARE II study areas to be managed in accordance with the provisions of the Forest and Rangeland Renewable Resources Planning Act.

The RARE II process, as defined, required a difficult wilderness or non-wilderness choice. Few areas lend themselves readily to that kind of division, either by objective evaluation or public consensus. The either/or option given by the Forest Service was, and continues to be, objectionable to us. Where possible, the difficult decision was made. However, for numerous areas the "showdown" process was simply inappropriate for sensitive areas that could in reality accommodate a broad range of temperate uses, particularly public uses. Rather than force absolute decisions on the potential uses for these areas (and risk foregoing sensible use options or imposing uses incompatible with the land) it is recommended that final decision on approximately 738,728 acres be made only after an additional "backcountry" classification is made available.

The "backcountry" classification will apply to areas where an essentially natural character will be maintained while accommodating a wide range of

temperate land uses. Conceptually, backcountry classification would remain essentially roadless. However, uses such as snowmobiling, livestock and range management, trail maintenance, firewood collection, management of wildlife habitat or improvement that utilize mechanized equipment would be allowed. Dispersed recreation will be encouraged, along with development of trails, shelters, and primitive facilities. Mineral exploration, including oil and gas would be allowed under approved management criteria. Demonstration of a clear national need for specific commodity would be an acceptable provision for further development. Harvest of the timer resource which would not alter the natural character of an area with permanent road construction could be accommodated.

The backcountry concept must be specifically defined and agreed upon by state and federal management agencies, with public participation, and be available as a land use option when allocating the 738,728 acres under discussion. This classification is available under provisions of the Forest and Rangeland Renewable Resources Planning Act, at the discretion of the regional forester.

During the development or revison of land use management plans, the backcountry option should be developed for public discussion.

Many Montanans have strong feelings pro and con about additional wilderness areas. The majority of residents support neither absolute wilderness nor absolute development. The backcountry option provides for intermediate land use in areas that deserve some form of limited protection.

No simple solutions exist in such complex situations, but Montanans should insure that their input is made known to national decision makers when the health of the vital industries is at stake.

We in Montana know that we have a beautiful state and we accept the responsibility of providing our fair share to the wilderness preservation system. I feel that this proposal accomplishes that goal.

TABLE #3

RECOMMENDED BACKCOUNTRY AREAS

A1485	Bear-Marshall-Scapegoat-Swan (F)	135,220
A1485	Bear-Marshall-Scapegoat-Swan (H)	54,700
A1485	Bear-Marshall-Scapegoat-Swan (LC)	277,750
A1485	Bear-Marshall-Scapegoat-Swan (Lo)	36,895
01063	Trapper Creek	2,500
01066	Needle Creek	1,100
01429	Dolds Lake	9,100
01435	Fred Burr	6,660
01481	Mt. Hefty	13,700
01541	Crazy Mts.	71,040
01911	Line Creek Plateau	20,680
01943	West Big Hole	109,383
	TOTAL ACREAGE.....	738,728